





22500056809

THE
PHRENOLOGICAL JOURNAL
AND
SCIENCE OF HEALTH.

A REPOSITORY OF
SCIENCE, LITERATURE AND GENERAL INTELLIGENCE.

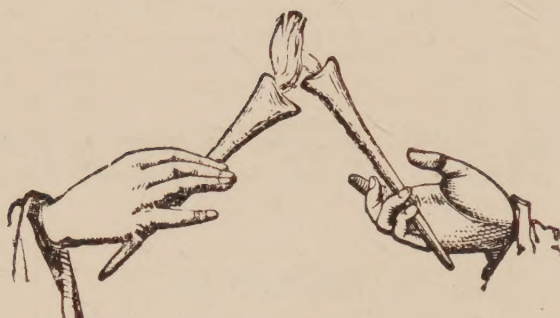
DEVOTED TO
ETHNOLOGY, PHYSIOLOGY, PHRENOLOGY, PHYSIOGNOMY, SOCIOLOGY, PSYCHOLOGY, EDUCATION, MECHANICAL INDUSTRY, HYGIENE, AND TO ALL THOSE PROGRESSIVE MEASURES WHICH ARE CALCULATED TO REFORM, ELEVATE, AND IMPROVE MANKIND, SPIRITUALLY, INTELLECTUALLY AND SOCIALLY.

Embellished with Numerous Portraits and other Engravings.

VOL. LXXXII. OLD SERIES—VOL. XXXIII. NEW SERIES.
JANUARY TO JUNE, 1886.

H. S. DRAYTON, A.M., M.D., EDITOR.

NEW YORK:
FOWLER & WELLS CO., PUBLISHERS, 753 BROADWAY.
1886.



“Quiconque a une trop haute idée de la force et de la justesse de ses raisonnemens pour se croire obligé de les soumettre a une expérience mille et mille fois répétée ne perfectionner jamais la physiologie du cerveau.”—GALL.

“I regard Phrenology as the only system of mental philosophy which can be said to indicate with anything like clearness and precision, man’s mixed moral and intellectual nature, and as the only guide short of revelation for educating him in harmony with his faculties, as a being of power ; with his wants, as a creature of necessity ; and with his duties, as an agent responsible to his Maker and amendable to the laws declared by the all-wise Providence.”—JOHN BELL, M. D.

“To Phrenology may be justly conceded the grand merit of having forced the inductive method of inquiry into mental philosophy, and thus laid the permanent foundations of a true mental science.”—*Encyclopædia Britannica*, 8th Edition.

WELLCOME INSTITUTE LIBRARY	
Coll.	WelMOMec
Coll. No.	

CONTENTS—JANUARY TO JUNE, 1886.

A

	PAGE.
All Can not be Great—Poem....	11
Arboreal Curiosity, An.....	52
Abscess, Value of an.....	111
Agassiz' Dream.....	219
Alcohol and Science.....	223
Anthropology, Academy of....	231
Already Discovered.....	232
Alaska, Glacier of.....	289
Alaska, Indians of.....	291
American Sugar Production...	345
Alaska Gold Mines.....	346
Argument from Analogy.....	348

B

Burr, Aaron.....	12
Baboon Hunting Water.....	51
Bible Picture from Pompeii....	51
Book in Stone, A.....	51
Botany Bay, An American....	59
Biometry.....	122
Bells, Facts and Fancies about	218
Backs and Character.....	255
Beggars Alike—Poem.....	265
Bible Distribution.....	289
Broussais and Delsarte.....	296
Biometry. Ill.....	310

C

Children, Joint Diseases in....	50
Cork, Preparation of.....	52
Cement, A Good.....	53
Catarrh, Treatment of.....	58, 222
Climate and Hydrophobia.....	112
Coal, Is it Vegetable.....	113
Criticism, More Small.....	117
Capen, Nahum.....	119
Coniferæ.....	136
Carver, Jonathan.....	152
Conduct, Hints on.....	168
California Volcanoes.....	171
Congo, Meteorology of the....	172
Cholera, Vaccination for.....	174
Character, Force of.....	180
Christian Religion, History etc	207
College Disadvantages.....	225
Confession, Congratulatory...	237
Criticism and Review, A.....	251
Character, Constitutional Ba-	257
sis of.....	257
Columbus, Christopher.....	290
Cartwright, Sir Richard.....	301
Character in the Ear.....	332
Cattle Interests.....	346
Cerebellar Organs.....	353
Correspondents, Answer to....	67
.....120, 179, 236, 296, 352	

D

Dress Reform.....	42
Design in Disease.....	45
Deoderizers.....	53
Devil's Footprints, The.....	171
Don't Do It.....	226
Diseased Money.....	286
Death, Natural.....	292
Decaying, Progress.....	293
Drinking, Too Much.....	354
Diligence Ensures Success....	354

E

Education, Hot House.....	110
Eyes, Changing.....	120

	PAGE.
Electro Psychology.....	121
Eye Glasses and Catarrh.....	170
Explosive, A New.....	174
Evolution, A New Doctrine of.	195
Everett, Edward.....	215
English Church, The.....	225
Eyes and Marriage.....	230
Eggs in Winter.....	231
Eyes, Prominent.....	296
Egyptian Statue.....	344
Eating and Sleeping.....	353
Editorial Items...54, 116, 175, 232, 292	
.....352, 348	

F

Father Time.....	25
Filters, Cleaning.....	52
Face, A—Poem.....	71
Faith Cures.....	105
Flame, Nature of.....	120
Fruit Eating.....	121
Fruit in Daily Diet.....	165
Fruits, Seasonable Hints on...	172
Feet, The Children's.....	179
Forlorn, District, A.....	221
Fingers, Venous Circulation in	228
the.....	228
Fires, Prevention of.....	228
Faith and Science.....	262
Foolscap.....	296
Familiar Talks...12, 75, 107, 190, 247	
.....306	
France, Coal Fields of.....	344

G

Greeting, Our.....	54
Glacier, Lake.....	174
Gough, John B.....	185
Gough—Poem.....	218
Graham, Robert.....	244
Gibbons, Cardinal.....	260
Gorilla, A White.....	344

H

Herorship and Hardship.....	8
Hamilton, Alexander.....	15
How they Salted the Pudding	47
—Poem.....	47
Headaches, Common.....	50
Handwriting Again.....	121
Hands, How Women Shake....	142
Hancock, Gen'l Winfield S....	157
Health, Standard of.....	163
Happy Home Living.....	275
Heredity, Principles of.....	276
His Weakness.....147, 172	333
.....317	
Handwriting, Character in...27, 139	
Health and Pecuniary Condi-	343
tion.....	343
How Many the War Killed....	347

I

Inventions Dreamed.....	174
-------------------------	-----

J

Journalistic Misrepresentat'ns	181
--------------------------------	-----

K

Knowledge.....	71
----------------	----

L

Libraries, Old.....	173
---------------------	-----

PAGE.

	PAGE.
Law, Study of.....	237
Library.....61, 124, 183, 240, 299, 356	

M

Martha, or Lost Opportunity..	39
McCloskey, Cardinal.....	41
Moral Susceptibilities.....	55
Medical Missionaries—5 Ills...	65
Morals, Improve the.....	72
Muscle Actions—6 Ills.....	100
Microscope Makers.....	115
Moral Training and Criminal-	116
ity.....	116
Mind Reading.....	121
Mother Nature—Poem.....	146
Mexican Obstacle.....	174
Miraglia, The Italian Phrenol-	177
ogist.....	177
Medical Missionary Work.....	178
Martyrs and Vitativeness....	179
Microbes, Life Duration of....	227
Medicine vs. the Doctor.....	233
Medicine, Infected or Skeptic..	234
Medicine, Trade in.....	279
Medicine, Is it a Science?.....	281
Mocaroni.....	287
Mithriac Worship.....	289
Moral Teaching in the Schools	290
Mesmerism.....	296
Measure of Life.....	297
Moter Centre Controversy, The	349
Mirth.....61, 124, 182, 290, 356	

N

Newspaper, The Oldest.....	172
New Jersey Joke.....	179
Nails, Legal Importance of....	223
Numbers and Letters.....	237
Nothing and Something, Poem	332

O

Outlook, Encouraging.....	55
Occupation, Change of.....	121
Oratory, Essence of.....	134
Old Shoes, Value of.....	166
Oyster Growth and Teeth.....	237
Old Age, Cicero on.....	259
Over the Line.....	351

P

Physiology, Standard of.....	48
Potato, History of the.....	49
Petroleum as Fuel.....	51
Phrenology in Every Day Life.	53
Plaster Casts, Taking.....	58
Prophetic Dreams.....59, 238	
Phrenology, Institute of.....	60
Phrenology, A New.....	74
People, Stupidity of Sensible..	79
Pictured Rocks of Iowa.....	97
People, A Tired out.....	98
Philippe Pinel.....	108
Phrenological Study.....	118
Persian Custom, A.....	121
Photography, Composite.....	143
Parnell, Charles Stewart.....	144
"Pelham," A.....	151
Prison Problem, The.....	160
Packets, Hygiene of.....	176
Physical Condition of Con-	176
sciousness.....	176
Progress against Prejudice....	178

CONTENTS.

	PAGE.		PAGE.		PAGE.
Presentiment, What Good?.....	180	Strikes, <i>A Propos</i> the.....	295	V	
Phreno-Mesmerism.....	202	Science and Industry.....	57, 113, 172, 227, 229, 344	Voice, Character in.....	20
Puck and Brownie.....	211	San Marcos River, The. Ill....	329	Voice of a Friend—Poem.....	33
Paralysis.....	220	Singular Case of Mr. Brown....	339	Voice, Deficient.....	58
Psychical Experience.....	297	Significant.....	352	Vanderbilt, W. H.....	82
Phrenology, Science in.....	297			Vandals, Goths, and Huns....	88
Personal.....60, 123, 182, 239, 298,	355	T			
Pictures and Faces. Ill.....	312	Temperament, Motive.....	57	W	
Physical Development and the		Temperament Modified.....	57	What Matters it?—Poem.....	21
Ministry.....	341	Two Angels, The—Poem.....	98	What is Love?—Poem.....	41
Peppermint Culture.....	346	Timber Growing, Profits in....	114	Women, Nice Girls and Good..	112
R		Telegraphy, Study of.....	120	Workwoman, Monument to a..	115
Ruth's Mistake.....	33	That and As.....	120	Ways and Means.....	146
Refuse Matter, Conversion of..	114	Tower; Another Great.....	173	Well Matched.....	167
Rome, Commercial Relics of..	173	Temperament, English Physi-	175	Writer's Cramp.....	169
Russian Marsh Improvement..	288	ologist on.....	207	Wages in 1800.....	173
Responsibility in Contagious		To Arms—Poem.....	219	Woman in Machinery, A.....	227
Diseases.....	338	Temper and Happiness.....	228	Washing.....	230
Rubbish as Fertilizers.....	344	Type-setting, Effect of.....	228	Wanted, A Society.....	237
Religion and Hypnotism.....	347	Teacher's Diary, Notes from a	266	Who is this?—Poem.....	251
S		87,	Wood Violets—Poem.....	251
Shaftesbury, Earl of.....	5	Tegner, Bishop.....	323	Woman, A Plea for.....	269
Sparta, Fat Men of.....	50	Timely Philosophy—Poem.....	328	What we Should Eat.....	285
Sunset—Poem.....	81	Trichinæ, To Detect.....	345	World, End of the.....	261
Silver, Should it be Demone-		Talks with Young People.		Writing, Brief System of.....	294
tized?.....	94	Destructiveness.....	12	What they say.....59, 121, 180,	237, 297, 354
Salt Lake Rising.....	113	Alimentiveness and Individ-	75	Well-Balanced, All.....	311
Suess, Prof. Edward.....	127	uality.....	130	Washington Monument.....	346
Science and Religion.....	151	Eventuality and Time.....	190	World's End, Prophecies of the	353
Store Mince Pies.....	170	Language and Weight.....	247	Wisdom.....69, 123, 182, 240,	298, 356
Success, Ode to.....	189	Color and Order.....	301, 305		
Servo-Bulgarian Struggle, The	200	Locality.....		Y	
Side Reverie, A.....	235	U		Year's Beginning, The.....	347
Shams.....	263	Useful to Him.....	298		

ILLUSTRATIONS.

	PAGE.		PAGE.		PAGE.
A		F		N	
Atterbury, Boudinot C.....	67	Familiar Talks, No. 1—7 Ills....	12	Newton, Sir John.....	307
Alimentiveness.....	75	“ “ “ 2—6 “	75	O	
B		“ “ “ 3—5 “	130	Osgood, Rev. Dauphin W.....	66
Bull Dog.....	14	“ “ “ 4—5 “	190	Observer, An.....	
Burr, Aaron.....	16	“ “ “ 5—4 “	247	P	
Brain Lobes.....	75	“ “ “ 6—2 “	306	Parnell, Charles Stewart.....	144
Brain, Front View.....	130	Father Time.....	25	Prince Alexander.....	201
Backs and Character—7 Ills...	255	G		Prince Milan.....	201
C		Good Story Teller, A.....	14	“ Paintin' Doggie,”.....	247
Cross Patch.....	12	Glutton, The Jolly.....	76	R	
Character in Handwrit'g—18 Ills	27	Gough, John B.....	186	Richelieu.....	133
“ “ “ -22 “	139	Giving him a Piece of her Mind	192	S	
“ “ “ -24 “	317	Graham, Rev. Robert.....	243	Shaftesbury.....	5
“ “ “ -23 “	317	Gibbons, Cardinal.....	260	Stanley, Henry M.....	13
Churchill, Lord Randolph.....	190	Geography, Lesson in.....	308	Shepherd Dog.....	14
Coniferae, The.....	136	H		Summers, William R.....	68
Czarina.....	249	Hancock, Winfield Scott.....	158	Suess, Prof. Edward.....	127
Cartwright, Sir Richard.....	301	I		“ See Saw”.....	194
Corday, Charlotte.....	312	Individuality.....	77	Servo-Bulgarian Struggle....	201
Clay, Henry.....	314	L		San Marcos Lake.....	329
D		Little Mischiefs.....	14	“ “ River.....	330
Destructiveness, Large.....	13	Little Tot.....	77	“ “ Fountain.....	331
“ “ Small.....	13	Leopold, King of Belgium.....	191	T	
Dowkontt, Dr. George D.....	66	M		Two Housekeeping Interiors... 250	
Diagram, Causes of Fires.....	229	Medical Missionaries—5 Ills ...	65	Tegner Bishop.....	
De Neuville, The Artist.....	248	Muscle Action—6 Ills.....	100	V	
E		Messenger Boy, The.....	123	Vanderbilt, Wm. H.....	82
Elmslie, Rev. William.....	66	Martin, Gen.....	132	W	
Everett, Edward.....	216	Map of S. Eastern Europe.....	201	Weight.....	193
		Matter of Opinion, A.....	281	Webster, Daniel.....	315

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 82. 1886.

NUMBER 1.]

January, 1886.

[WHOLE No. 567.]



THE EARL OF SHAFTESBURY.

THE portrait of the dead philanthropist is well worth studying. Look at the noble contour of the face! Behold the firm, deliberate chin! There is no weakness, no vacillation there. It tells of a character well based in steadiness of purpose, and with no lack of warmth, and even ardor in the pursuit of an object. The same story is told in the upper lip. It is firm and determined, ever rigid. There

is something of austerity in the long droop of the outer flap of the lip. It indicates precision also, and would be hard but for the fold in the cheek indicating benevolence and hospitality. Then look at the nose. It would be hard to find a more common-sense organ. It is no nose to philander with Greek statues and dream over decayed glories, but is one to deal with the facts of every-day life. It is not weakly, curious and inquisitive; neither is it suspicious and cynical; nor perhaps very speculative, but it is critical, inductive, argumentative, and with a good deal of originality of method. It is the nose of a banker, a manufacturer, an engineer, a statesman. It is a good, defensive nose, but not the nose of a soldier; it indicates industry and economy, and yet betrays generosity, though without squandering. The eye indicates a cold, clear intellect, with method, and a dry way of marshalling facts; language without wordiness, and a certain facility in dealing with indigested material.

Coming to the brow, we have indication of a sound and precise, though not a great intellect. Order, calculation, observation, a quick appreciation and ready memory of facts, critical acumen, and knowledge of men; these are some of the salient points. Not much wit, no more humor; the sense of physical beauty subordinate to the sense of utility, the idea subject to the moral sense. These limitations give some narrowness to the intellect and to the intellectual sympathies. But there is no such narrowness of moral sympathy. A man, one would say, almost entirely without imagination, not likely to condemn a novel as a falsehood long drawn out, but somewhat that way inclined. His sympathies are largely social, because so social himself.

Look at the fulness of the occipital region, especially at the point indicative of Love of children and Friendship. He would make home the image of heaven here below, and he would consider the one who neglected home and abused its sanctities as the greatest sinner. A man,

moreover, of incessant activities, impelled to work, more by his sense of duty, and his dissatisfaction with a task unfinished, than by that restless energy which makes men ascend Alpine peaks and burrow amid Arctic ice.

But the glory of the man are his great moral powers and their development. One may often see men with larger Benevolence. But Benevolence without the guiding influence of conscience, reverence and good sense is as likely to do harm as good; but here conscience, sense of justice, the feeling of duty take the lead. Then come Veneration, Hope and Spirituality, the latter perhaps subservient to the others. Although full of faith, founded on the word of promise, he was not a superstitious man. He saw no ghosts, believed in no apparitions, and had a very limited belief in what is called the supernatural. But he had a very clear sense of the divine in the human; and it was his constant aim to foster and educate that divine, and repress the brute and ape.

L. N. FOWLER.

The death of the Earl of Shaftesbury, following so closely that of Sir Moses Montefiore, has caused much lamentation among the needy, sorrowful and lowly in England. In faith so widely differing, yet in practice, purpose, determination, purity of character, simplicity of life, and scholarly attainments so like these two men were beloved by all people, and henceforth the names of Montefiore and Shaftesbury will be remembered with gratitude and their mention will kindle kindly thoughts and stimulate good motives.

When a man of renown falls out of the ranks of the great battle of life, the question first to arise, is, "Who will stand in his place?" Many people of wealth have generous impulses, are overflowing with genuine sympathy, yet lack the executive ability necessary to make these impulses valuable. Lamentably deficient

are many really excellent people in the discrimination which insures the best use of their benefactions.

In Lord Shaftesbury all the elements of a grand philanthropic life were harmoniously blended. He possessed in a large degree the courage to follow up his convictions of a needed reform to a successful climax, and was never slow to use the lever of good English money to uproot an evil. In that he had the advantage of many a brave and wise humanitarian, who fails to convince the pockets of the rich into comradeship with his heart. Lord Shaftesbury did not need to "go a begging" for the wherewithal to prove his statements. Perhaps next in value to him, with his ample means, was the hearty co-operation of his wife and children in all his benevolent enterprises.

Lord Shaftesbury was born in London, April 28, 1801. He was educated at Oxford, where he won distinction for thorough scholarship. As Lord Ashley, he represented various constituencies in the House of Commons. In 1851 he became, by the death of his father, Earl Shaftesbury and entered the House of Lords. The unflinching integrity of the man was proven when Sir Robert Peel was called to the Premiership the second time, as he then positively refused longer to hold office under a Prime Minister, who would not give his support to "the ten hour bill" which Lord Ashley had in charge. From that time until his death he was independent in politics, devoting his time as a statesman to the amelioration of the condition of the working classes and the abatement of suffering among the poor. A statesman in the best sense of the word he realized that benefactions to the needy, and diatribes against their wrongs were but wasted ammunition in an important warfare. If the law did not cover the same ground with a restraining hand in every enterprise Lord Shaftesbury agitated for laws on the subject, and many of the sanitary provisions and acts concerning

the employment of women and children in the factories owe their existence to his energy and persistence. He did not say to others "do this," but that which he saw needed doing he did promptly. His heart being engaged in the work, his hands, his pen, his eloquent tongue and his open purse were ever joined with it.

The *London Times* says:—"There are men now living who remember how the evidence collected by him concerning the treatment of children in factories sent a thrill of horror through the length and breadth of England." That was the beginning of his career as a humanitarian and fearless advocate of the rights of the poor. He was then but thirty-two years old, and presented to the world the sublime spectacle of a man of wealth, culture and talent giving up the promise of a bright career in the world of letters for the actual drudgery of personal investigation of sanitary, moral, and mental conditions among the lowest class of London's poor. To his efforts at that time the Society for the Prevention of Cruelty to Children owes its present power.

Many characteristic anecdotes are told of him. He never forgot a face to which his attention had been called; he never refused a token of kindly regard from any of his protégés and would turn away from a nobleman's cultured conversation to hear the broken tale of a sorrow-stricken charwoman or a boot-black in "hard luck."

The costermongers of London, when they realized that it was through Lord Shaftesbury's efforts that their patient beasts were more kindly cared for and their business correspondingly improved presented him with the handsomest donkey in the city. Jack was graciously accepted, and became a great pet with the Earl and his family at Fokestone.

When on October 1st, the news fell like a knell on London "Lord Shaftesbury is dead!" the people mourned as for a father. In token of their appreciation of his good works "the poor of London

came in vast crowds" to follow the remains of the philanthropist to his last resting-place.

"In politics he was conservative, but when he rose to address a meeting he was greeted with unbounded enthusiasm, and probably addressed more people upon a wider scope of subjects than any other man," says the *London Times*. One source of his convincing eloquence was that he first carefully investigated a subject, then studied out the best course of action. His facts no man could gainsay; his remedies he believed in and was willing to pay the price of first experiments.

In all the churches of the great city of London ceremonial services were held on the Sabbath following the death of Lord Shaftesbury. Neither creeds nor language interfered with the tributes to the memory of a good man, noble beyond the titles earthly decorations can bestow.

Canon Duckworth in his sermon at

Westminster Abbey, October 14, after alluding to the frivolous character of modern society said, "How refreshing is the spectacle of a life lived grandly aloof from these and all other vanities, all the mean and be-littling influences at work in our generation—such a life as that of which England is now mourning the close, devoted almost to the last hour of its lengthened span to the most solid employments and the most beneficent ends. There is, indeed, hope for us amid many tokens of degeneracy if we can appreciate the surpassing beauty and dignity of such a career as Lord Shaftesbury. For no more precious gift can God bestow upon a nation than such an example as that great Christian philanthropist has bequeathed, not only to the order of which he was the noblest ornament, but to every class of the community, for whose sake he "scorned delights and lived laborious days."

HEROSHIP AND HARDSHIP.

BY heroship I mean great fundamental qualities which make one man the leader of leaders. Genius, intellect we might call it, were not moral energies required—the soul of heroship, without which the work of genius is ephemeral like the Napoleonic phenomena. Moral qualities exist in all, but more or less shorn of their active virtue by some unsuspected Delilah which makes them soliloquizing Samsons, merely, and haranguing sensations rather than revolutionizing influences. The difference between heroes and leaders is that one hero suffices many generations, while one generation is sufficient for many leaders. These are not altogether worthless, keeping awake the nation, as they do, with their hue and cry till the true hero comes to breathe into it a new, eternal spark. But withal, they are mere physickers, not scourges of disease and heralds of health like a Moses, a Mahomet, a Luther, a Shakespeare, or an Emerson, heroes differently

implemented for the different needs of their respective age, but intrinsically of the same unalloyed moral stuff—soul energy and sincerity. Heroship gives a new impulse in a new direction; revolutionizes externally and internally, perceptibly or imperceptibly, according to the times or the character of the impulse. Genius merely busies itself with what already is. It has no travails which give birth to one entirely new object. Historians, philosophers, moralizers, doctrinists, reformers, are the after-glow of past heroship. Elements of a truth are many, so are aspects. And, after the first onward impulse is given, the world must needs divide and subdivide the precious leaven to satisfy the universal hunger for peculiar possession. This is their task, dressing in relishable variety the manna of an out-of-the-dessert leading hero. They are the Joshuas of an Exodus after the Moses has gone.

The stern law of progress evolves nothing without a heavy tribute of hard-

ships. We know, therefore, that this is the necessary environment of heroship. But by a strange grossness of conception we give these hardships a most material character, make poverty, adversity, physical suffering of some kind our criterion of good qualities. The highest capacity must be bent to the lowest possibility, and wade in the slum of life to make itself. For we are proud unbelievers ever, and would not recognize a hero unmarked with the poor tortures within our narrow conception or experience. Like all errors founded upon some vague principle of truth, this error is strong and asserts itself as truth to us on the strength of its foundation and plausibility. We are taking the symbol for the symbolized. Nature produced the one, perhaps, for the purpose of giving us a rough insight through her similes into the spiritual character of hardships, and, alas, we are content to live by her rude pictures uninterpreted, build up beliefs on the shadow of appearances. Where the evil effect comes in we shall see immediately.

The simple instinct to recognize valor, fitness for chieftainship in youth, emerging unquailing from hard usage, trial, tortures, and so forth, which nature has taught savage nations, was right necessary, a law of existence unconsciously obeyed, and not vehicled into all sorts of by-beliefs. They prepared these trial tortures with their own hands, had no belief that destiny would make any for them, as our civilization makes destiny bring poverty racks ; and knew that such trials would merely show what the youth could, or could not be. We, with our superior intelligence and humane civilization, let them be bruised and battered in the struggle for existence, and are more barbarous and stupid calling this destiny a making of her hero. Instinct developed into reason ! It fashioning a cruel faith of self-help around the symbol of a fact ! This is some excuse for scarcity of philanthropists at least ; their timely assistance and relief might deprive

the world of its prospective hero by spoiling him. So we let millions of quivering, sensitive souls stretch on this hero-manufacturing rack to find the one who will not be vanquished. This one, who would have been a hero without the rack, we hold up and cry, " see the uses of adversity ? " This is all wrong. Because we have a confused knowledge that heroism and hardship go together, because there is something in a hero's face, in his influence, something in his heart sincerity touching ours so deeply, which tells us that he has suffered, fought, though we know not what, is it wise to grasp at some physical substance, the nearest to our immediate comprehension, and call this the mill of destiny in which he has been ground out a hero ? Without a deeper insight into the meaning of a fact, if we would only let alone our reasoning and building up of beliefs, and be simple minded in its acceptance as our savage ancestors. Truth came to them by instinct, they obeyed it by action unconsciously, and it was wholesome. We analyze its outer shell, reason a conglomeration of gross materialism into it, and get a world of misery and error which every hero must put up with as the necessary process of his development. What we should take out of this universal belief in physical hardships being the making of heroes, is the nature-veil through which we interpret everything of a spiritual character. No matter what the consistence of truth we must always grasp at some visible, palpable substance of it. Do we not see that the harsh circumstances in which fortune has placed him do not really make him a hero, but merely *prove* him one a little before he can do so in his own proper hero element ? No need of crying to him self-help ; it is his essential composition. He is a hero in embryo ; great qualities are all there in miniature. And fortune, handling him roughly without breaking the spirit, is but a prefigurement of what his hardiness will eventually endure triumphantly amid

opposing elements of error. If harsh circumstances *made* heroes why have we not more? Then, too, what made one of our palace-reared Moses, our affluent, idolized Goethe, our easy-situated Emerson? We find heroes as diversely situated as other people. The latter rise unheroic above their circumstances, or fall according to capacity; the former rise always in any condition. The hero will show himself in his time, be he reared in palace or hovel, fighting spiritually the vanity of empty shows or physically the battles of poverty. Circumstances may place him, but they do not make or unmake him. Luther's qualities did not place him at the head of the Reformation. It was the spirit of the Reformation or the spirit of the age. In an Italian atmosphere, a less rationalistic age, he might have been a Savonarola, or a Hildebrand, not less a man of unshorn moral energy and truth; not less a hero, but another kind of one. This is the bit of argument which iconoclasts of hero worship have for belittling great men into creatures, tools of the times. Tools, indeed, which times have made into appropriate use, but the rude metal of which they no more made than did our extolled mills of adversity.

The real hardships of heroship are exclusive and twofold; spiritual, as the soul's struggle with the problems of life; material, as they encounter opposition and ridicule. That soul agony in which the Sublime One of Nazareth struggled forty days in the wilderness, and that persecution which even upon the cross could not hush his victorious cry, "It is finished!" typifies the two fire-trials of all heroship. Moses heard the divine voice in the burning bush after wanderings in despair; Mohammed conceived his mission in the barren solitudes of the cave; Luther learned his soul's discipline in the austerities of the convent. But shall we say that these incidents furnish anything but the clue to an inward fact? Other revealers of new, moral truths, had no such trying

conditions, and we know only by their utterances, steeped in the language of a common soul-experience, that they passed through a similar spiritual Gethsemane which determined their hero-ship. They all first beheld the incongruousness of life — error throed, truth behind it; peace sought through contentions; its good everywhere the object, the bad everywhere the means; a universal silent fact permeating life, known instinctively, but not found practically; and felt the first throes of that mighty woe which is audible in every living thing and fills the annals of history with records of tears and blood. That was their common spiritual hardship. For, with them, to feel intensely was to will intensely, and to do intensely. And whatever they did thereafter, bore the impress of that first travail of the soul which the rest of humanity, because it appealed to them so strongly, and which yet it feels in a much less degree, must needs identify with material hardships more familiar experiences. In reality, however, Christ would have been no less a Saviour had he taught from the throne of David instead of on the highway, any more than Moses was less a deliverer of the people of Israel, because he was reared in the palaces of the Pharaohs. Prince, or lowly Nazarene, we have but to read their laws to know that they were the triumphant result of thought in sorrow and self-forgetfulness in pity. The philosopher of Concord, yielding his pulpit of divinity for the temple of nature, we have but to read his works to know that he came by his hard-won truths through a similar Christ's "wilderness." And so we might say of every true hero whose influence is immortal. To go down into the depth of human suffering, vice, ignorance, and bring forth that redeeming spark of truth over which, and themselves, the world has pulled, like blind Samson, a great edifice of error, is the "descending into hell" which stamps the savior marks of suffering and victory upon the hero.

With these strengthening their conviction of a right or wrong; with these showing through every utterance and teaching, they touch and quicken and lift humanity in spite of itself. For we are so far from comprehending the Seer's vision and plans that a certain untowardness characterizes our scarcely conscious yielding to his moulding influence.

This brings us to the hero's second hardship—the battle without against our confused, timid efforts of progress, by which he proves himself to us the exceptional man. While he has shown that he has everything in common with humanity, susceptibilities, impulses, sympathies, and the ills of fortune, he will show that humanity has not everything in common with him. His impulses to make new paths evidence his likeness to us, for we are all given to pioneering on pleasant remunerative ground. But his doing it through forests of opposition and no thought or prospect of reward except self satisfaction, shows our unlikeness to him. There is his material hardships which prove him a hero. We are so quick to formulate something, anything to go by upon hearsay and appearance, anxious only to get into some poor apology of a haven. So we build from these a mind's habitation, impregnable as we think, but snail's houses in reality. We dare not stick our busy consciousness beyond its walls that it does not come in unpleasant contact with new facts and sensations threatening to over-rumple our frail structure of faith. So we wisely keep within and make protecting bulwarks of customs, dogmas, and cast-iron creeds. But the hero can not be content with such housings. So he goes about homeless, with no wadding for his ears, and no blinds over his eyes, sees what we do not, and is called a visionary; hears what we do not, and is called crazed. Altogether he is a lonely wanderer unsolicited by any but truth. He is remote. He has first to grapple with ob-

structing errors, has to dive into the middle of life's phenomenal strife, and eliminate that single particle of truth which has been its food. This truth is, that truth exists, and that the whole world is seeking it in her thousand inharmonious ways. Knowledge of this gives him the key to a better way. He realizes the necessity and consequence of bold confidence, and faces it like a hero. The world expresses in timid half articulated sentences, which constitute their issues and theories, what they are now startled to hear in full trumpet tones from the hero. We creep through all sorts of crevices for light. He tears down our miserable inclosures, lets in a whole flood of it, and is blamed for blinding us. What matter? An age may be required to right its confusion, but the light is brought for a dozen ages to see, and to work by. We may again build our pet inclosures of formulas and beliefs, but they are now more spacious and the hero's plan is visible in all. It is through the pioneering, the physical and spiritual hardships of heroes that we arrive at larger planes of life and reach all our moral ultimatums.

BERTHA A. ZEDI WINKLER.

ALL CANNOT BE GREAT.

All men cannot be great;
 Within the church or state.
 Were they, then there would be
 The mediocrity,
 And no man mountainous,
 To look down upon us.
 If one gift has been given
 By an indulgent Heaven,
 Let us not envy men
 Who have the golden ten;
 And let no napkin hold
 The single gift of gold.
 If all were eloquent
 Of speech and sentiment,
 And audiences were made
 Of orators by trade,
 All speaking the same strain,
 Babel would come again.

GEORGE W. BUNGAY.

FAMILIAR TALKS ON PHRENOLOGY FOR OUR YOUNG READERS. No. 1.

WHILE the range of mental science is so vast that the grandest intellects can not grasp all that it involves the principles that lie at its basis, and the primary laws that govern the relation of the organs of the brain, may be understood by the young. The great lawyer, Rufus Choate, once said that "There was no thought too intricate for a popular audience, if rightly presented." The fundamental thoughts of Phrenology are great, but they can be comprehended by children, if care be taken in the use of words that belong to children. We say that the brain is the *organ* of the mind. This is a great fact, admitted by all. Just as the hammer is the instrument the carpenter uses to drive a nail, or the saw is the instrument he uses to cut a board nicely in two parts, so the brain is the instrument, or tool, or organ, that the human mind employs to make known its ideas, its feelings, wants, etc.

We do not know the nature of the mind itself, no one does; but through the brain we get a knowledge of its action, and by watching different people we find that scarcely any two are alike. The boy knows that his mother is very different from his father in some things. One parent may be very kind, tender, loving; the other may be cold, severe, fretful and peevish. One may be often ready for a romp, or to show him how to do the puzzling sum in arithmetic, or how to parse the hard sentence in grammar; the other may scold because the children are making "too much noise," and sternly tell them they are lazy or stupid when they complain of "hard lessons."

Children soon learn their parents' minds,—they read their faces and know when father is in a good humor, and whether or not mother will let them do something their hearts are set upon. Thus the young folks in our homes be-

come mind-readers in their way, and very good mind-readers too, and it is not a difficult thing to teach them the science of mind-reading; to add rules and methods to what they have learned for themselves in an instinctive way.

It is very common to see people, old and young, in a state of anger—what we often call "mad." Something has taken place that does not suit their wishes—what they expected—and they "get into a passion," and stamp about furiously; their eyes flash, their faces are wrinkled and strained into very ugly shapes; they scold, threaten all sorts of terrible things, even swear, and may, if their passion goes to extremes, do serious injury to some person or thing. A boy or girl when influenced by rage has an expression very much like that in the picture, and our

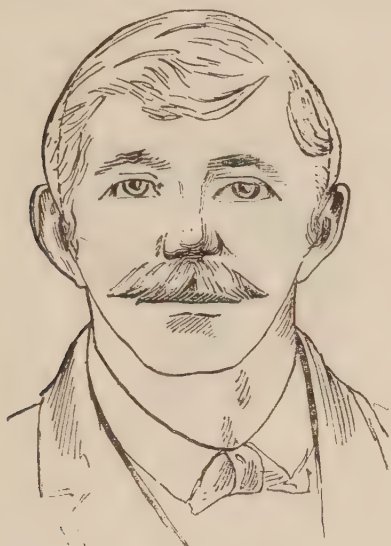


CROSS-PATCH.

young reader, if he does not like to look in the glass when he is "mad" can see by the picture how he looks—what a pretty face he makes when "in a tantrum."

We have heard of a little girl who was much given to getting into a rage when displeased about anything. She would kick and stamp about, and knock things over, sometimes breaking valuable articles. Her mother tried different ways to break this disposition, and finally took her to a mirror, and showed

her how she looked when in a bad temper. This was repeated several times, and had the effect of making a great change in her character. Now this girl had a pretty large organ of Destructive-



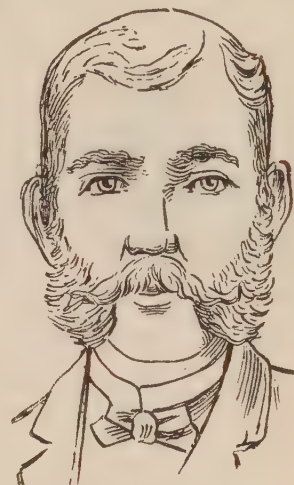
DESTRUCTIVENESS LARGE.

ness in her brain, and when it was greatly excited and allowed to have its way, without being held in by other organs like Cautiousness, Conscientiousness, Benevolence, Veneration and others, of each of which we shall have something to say in future numbers of the PHRENOLOGICAL JOURNAL, it made her appear ugly, and furious, and wicked.

Destructiveness is an organ of the brain that lies down in the side of the head. The ear is just below it. The picture of a man's head shows it very large, because the parts above the ear swell out so much and make the head look very broad. The other picture shows it very small. You may ask why we have such an organ in our heads? We answer because it is needed in our every-day life. Its right way of acting is to incline us to do those things that belong to our sphere. When active and strong it makes people industrious, energetic and disposed to carry out what they undertake. Men and women who like hard work that uses the hands have large Destructiveness, and boys who like to use a hammer and other tools that require much force; and when they play, like games

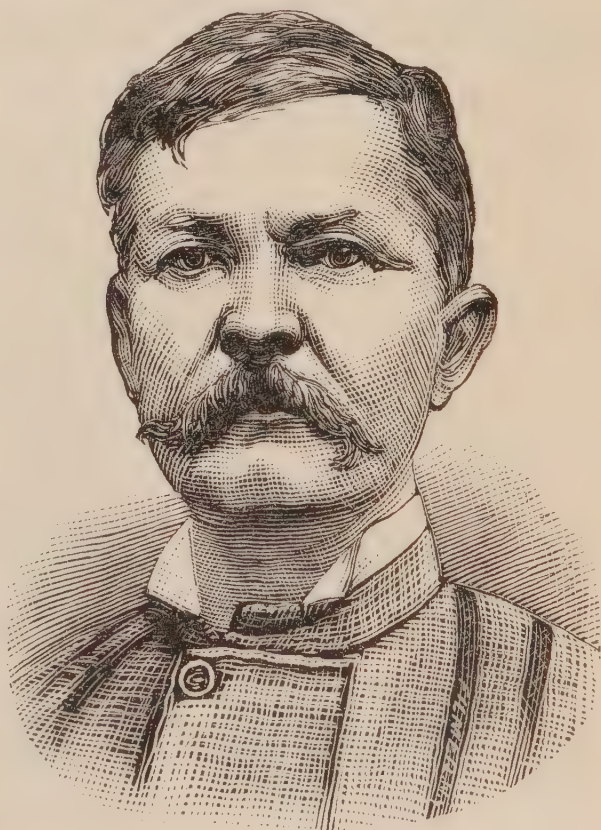
of strength—base ball, nine-pins, football, etc., have this organ large.

It does its right work too in helping men and women, boys and girls to face danger and do heroic deeds. It helps to make them enduring, to stand a great amount of hard work, pain and suffer-



DESTRUCTIVENESS SMALL.

ing without becoming worn out and broken down. Soldiers who can stand long marches and then go into battle and fight for hours; hunters and travellers



HENRY M. STANLEY.

who can climb steep and high mountains—all show large Destructiveness. There is an organ we call Combativeness in the

brain—we shall describe it in a future number—which gives a boy courage and boldness, but to carry out any venture that is trying, painful and severe, he needs Destructiveness.

Men who are found of adventure, and go into unknown regions, steer their ships into the ice-ribbed seas of the far

It is very interesting to see the difference that animals show when this organ is large or small. Savage, ferocious animals generally are very large in Destructiveness, and the docile, kind ones that children are found of are small or moderate in it. The tiger, the wolf, the lion, the fox, the weasel have very broad



SHEPHERD DOG.

North to find the so-called North Pole, or brave the beasts and wild tribes of Central Africa, are broad headed. Lieutenant Schwatka who has told such interesting stories of Arctic exploration, and Henry Stanley whose name every schoolboy



BULL DOG.

heads, but sheep, horses, deer, rabbits, have narrow heads as compared with those beasts of prey. What a difference there is among dogs! Some you can make friends with at once, others you don't want to go near, for they snarl and snap whenever they see you. There's the bull dog—a sullen, ferocious fellow—what a great, broad head, wicked eye



LITTLE MISCHIEF.

knows, and who has given such vivid descriptions of African life, have large Destructiveness.

and hungry mouth; but the spaniel and shepherd dogs, their heads are so much less in width, and they look at you kind-

ly and wag their tails as if glad to be noticed—they have much more intelligence, to be sure, than the bull-dog, and that with their good nature and affection makes them so highly prized.

A child that has large Destructiveness is inclined to be unruly when he is crossed, and will strike his playmates, kick over his toys or throw them about recklessly. If he does not have a good share of kindness and generosity—qualities that the organ of Benevolence gives, he will be prone to mischievous tricks that worry and hurt. He will be fond of teasing the dog and cat, and take pleasure in hearing poor Bounce whine and howl, and poor pussy cry. He pinches the arms of his play-fellows, pulls their hair, and seems to enjoy the scolding he gets for his rude fun.

The little fellow in the engraving has large Destructiveness evidently. Just look at the state of his toys; he sits surrounded by ruin that he has himself made. Probably his wagon did not run to suit him, so he gave it a kick that reduced it to splinters, and that feat started him on a course of reckless destruction; everything that came in his way suffered. The pretty locomotive and its

train of cars that Uncle Joe gave him only a few days ago, came in handy for a share of abuse—was overthrown, dismounted and generally smashed up, like a regular railway train in a collision with another train. Look at the expression of sullen satisfaction on his face as he shows you his success in tearing off the head of his sister's doll-baby! He needs to be taken in hand by his father and mother and carefully trained. That strong organ that makes such havoc now is allowed to come out in an improper, disorderly way; it is like a vicious horse that kicks, and bites and runs away, dashing the wagon to pieces, and perhaps killing the driver. Gentle and firm discipline will help such a boy to restrain his temper, and use the force that belongs to such a powerful organ in directions of usefulness. Let him go on errands, bring in the wood and coal. Give him a set of strong tools and some bits of boards, and put him in the wood shed or in the garret where he can hammer and saw for himself. In this way he will work off the excess of force that large Destructiveness inspires and he will be better natured, more obedient and kind.

THE EDITOR.

TWO AMERICAN STATESMEN—AARON BURR AND ALEXANDER HAMILTON.

IT is easier to discover differences than to note similarities. Place two persons together and the ordinary observer will point out the marks of contrast at once, while he may not notice the resemblances at all. True, some men may not be compared; they can only be placed in juxtaposition. Washington and Dante, Socrates and Napoleon, are contrasts only. Again, there are those whose figures, faces, characters and lives present strange parallelisms that cannot be overlooked. They may live in ages and countries widely remote from each other, like Caesar and Napoleon, Homer and Milton; or they may

be contemporaries, citizens of the same republic, members of the same profession, as Aaron Burr and Alexander Hamilton were.

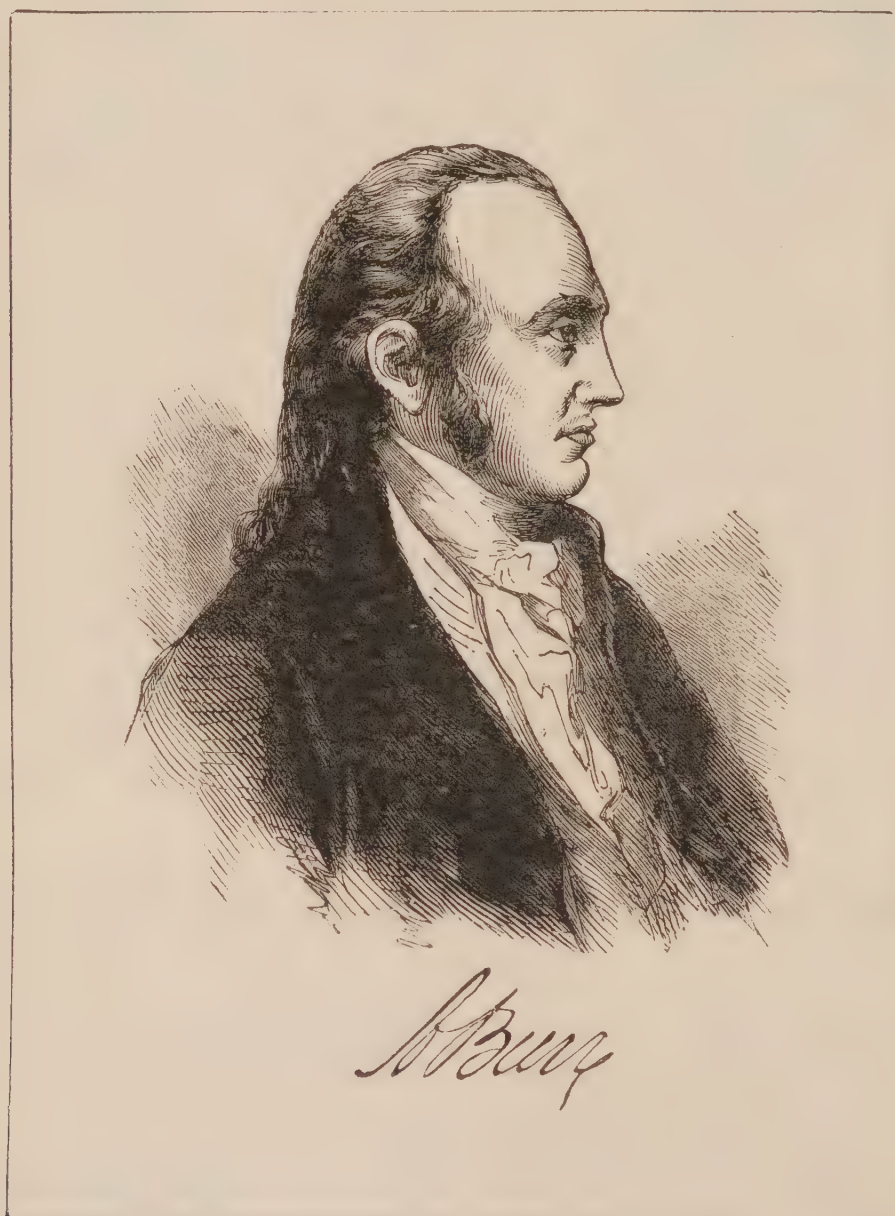
No other men prominent in American politics so strongly resembled each other as Burr and Hamilton. In many respects they were the counterparts of each other. The similarity in their appearance as to form and size was so marked as to arrest attention. Both were slight, under middle size, but erect and courtly in bearing. Burr was perhaps the most striking in appearance, and a trifle the taller. Hamilton used to laugh at his own nether limbs. When

asked to dance he usually declined, saying that he hadn't legs enough. Both men, however, were good-looking and dignified.

The faces of the two men presented many points of similarity. Two brothers could not have resembled each other more. Both had aquiline noses, sharp

were varying shades and minor differences in character and disposition ; but they do not detract from the strong resemblance of the grand outlines.

Burr had the finer-grained organization ; few men have had finer. There was not an ounce of dead metal about him. He was sensitive, alert and vigor-



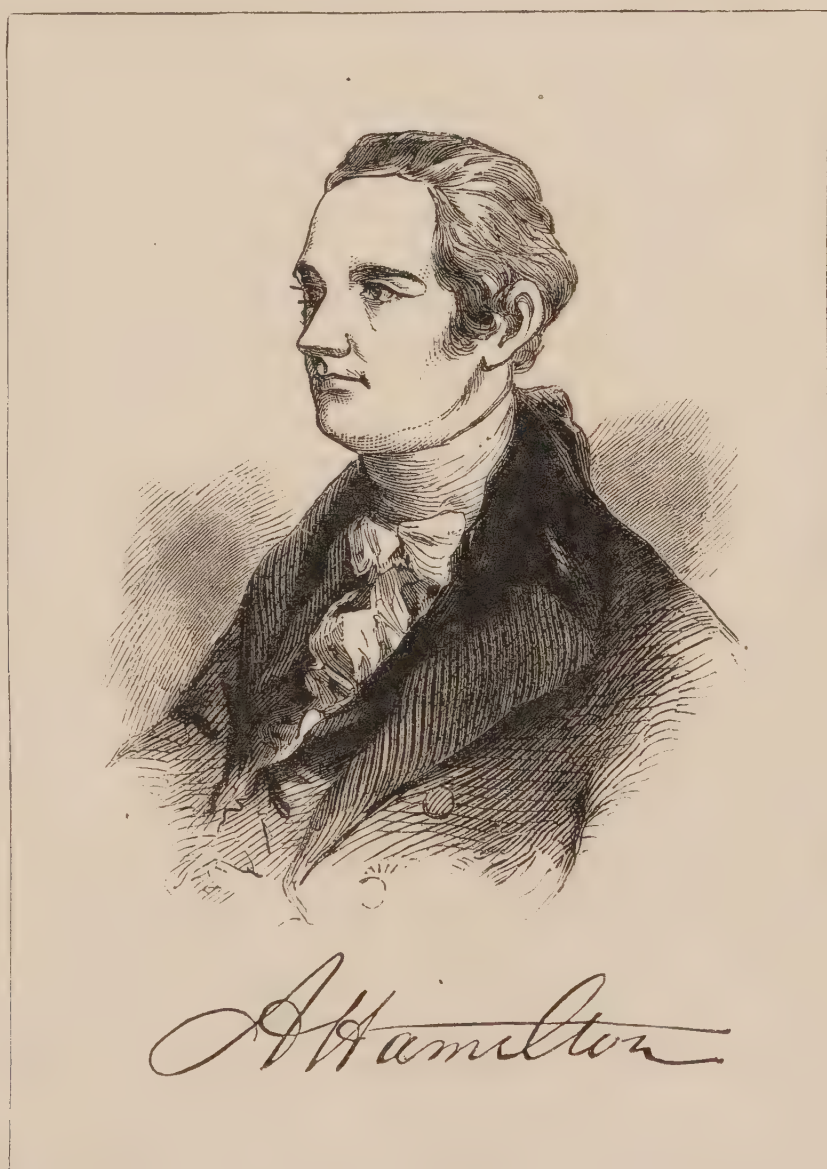
gray, magnetic eyes ; superb broad foreheads ; full, red lips, curved handsomely ; full, strong, round chins ; fair complexions, and rosy cheeks. Their temperaments were alike ; both were aspiring, ambitious, shrewd, able lawyers, successful politicians, gallant, brilliant and chivalrous. Of course there

ous ; glittering like polished steel or fine gold. His organization was delicate as that of a poet, refined as that of a woman, yet he was a soldier and a statesman. He came, it must be remembered, of the best and most intellectual blood in the colonies. His father was the gifted divine, Rev. Aaron Burr, the second presi-

dent of Princeton College. His mother was the daughter of Jonathan Edwards, the great New England theologian.

Hamilton was of West Indian birth and of mixed descent; his father a Scotchman, his mother of French extraction. That tropic cradle and his Creole motherhood would account for the fire and precocity which we find dis-

seem in any way developed to the detriment of those of the top head, nor are those of the crown in any way deficient, though there are distinctive variations alike in the intellectual and moral faculties of the men. Hamilton had the most vanity; Burr the greater self-esteem. Hamilton was larger in his reasoning faculties; Burr in his perceptiveness.



tinguishing Hamilton. The portraits of the two men show both to have had grand and magnificent heads, broad at the base, towering at the top—the heads of great and brilliant thinkers and educated men of the world. They are well-balanced, having both large Combativeness and Destructiveness, while the coronal region is full. The side faculties do not

Yet no one was more cogent or logical than Burr. The height of the upward curve of the wing of the nose of Hamilton indicates a faculty of reasoning *a priori*. He was disposed if anything to theorize too much; his mind was more philosophical than practical or scientific. Burr's nose was characterized by a downward extension of the septum, indicating

the power of discovery, analyzing and combining—"a threefold mental process, by means of which truths are established and systems founded." Hamilton was great in Causality; Burr in Comparison.

Hamilton showed the largest development of the organ of Language; this combined with his large Ideality and Sublimity and his Creole fancy made him flowing, copious and ornate in his expression. His polished sentences and lofty declamation charmed both judge and jury. He spoke as if the Attic bee dwelt forever on his lips. His public writings are most delightful reading at the present day. Every expression is burnished with the beauty and polish of a rich imagination. But if Burr was less eloquent he was not less deep and profound. Without any rhetorical display of language, or sophomorical lugging of figures into his argument for the purpose of ornamentation, he seldom failed to carry his point, and to convince his hearers. His immense faculty of analysis, his keenness of satire, his power of comprehension, generalization and crystalization of thought and principle, his wealth of illumination, his construction of sentences, and the darting fierceness with which he shot his bolts of fire, made him terrible to his enemies, and few could withstand him. He seemed to grasp with keen intelligence the vital point at issue, and, instead of taking up and refuting *seriatim* each argument advanced by an adversary, would concentrate his whole strength on that one point and destroy the labored eloquence of a four-hours' speech in fifteen minutes. It is said that Burr and Hamilton were at one time colleagues on an important case. Hamilton somewhat haughtily intimated to his rival that he would close the case, it being the custom that when there were several counsel on one side, for the ablest to speak last. Burr, with his customary politeness, acquiesced. But so thoroughly did he cover the ground with his own argu-

ments that he anticipated everything that Hamilton had to advance, and the consequence was the great orator made a poor show before the court on that day at least.

Burr had the largest Individuality and the greatest Firmness. Hamilton was brought up in the school of Washington under restraints as severe and discipline as merciless as ever distinguished "The Order of Jesus," and had no absolute will of his own; but Burr was his own master. He never bowed to mortal man. It would have been better for him perhaps had he shown less pride, but he knew his own abilities so well and had so often tested them that he thought he could triumph to the end. Hamilton, great as he was, would have sank under half the obloquy that Burr met, but the latter never quailed, never once lost his equipoise. He endured the odium of a great political party, and saw himself followed by the hate of the cabal that had sworn to ruin him with the calmness of a stoic and the patience of a saint. He outlived all his friends, and saw everything that makes life precious and beautiful torn from him without a murmur or a sigh. It would have rendered some men petulant and morose, or cynical and misanthropic. Burr was the bland, smiling, courteous gentleman to the end.

Hamilton was more emphatically the student; Burr the man of actions. Hamilton hoped to influence men by his writings; Burr depended on intrigue and his knowledge of human nature. Both were adepts in their respective arts. The "Federalist," which consists largely of Hamilton's writings, is his noblest monument, his surest passport to fame. In American literature Hamilton's letters occupy the place that the "Letters of Junius," and Burke's "Picture of the French Revolution" do in England. For making political combinations, or seizing the few salient points of a great operations and making more of them than the multitude could by touching every detail, Burr was the man. He was

more adroit, comprehensive and audacious than Talleyrand or Metternich. No other man in American politics ever possessed such consummate address or such knowledge of human nature, unless it was Van Buren, and he was Burr's pupil. He knew men at a glance and how to use them. Mrs. Lamb tells how, in that busy campaign in which he was elected to the Vice-Presidency, he personally superintended the making of the lists of voters and the appointment of committees. The committee on finance had the names of several prominent business men jotted down whom they proposed to call upon for contributions. Burr looked over the list and noticed that a certain politician, noted equally for zeal and parsimony, was assessed one hundred dollars. "Strike it out," he said; "he will not pay the money, and the moment you solicit it his exertions will cease and he will absent himself from the polls." Another man, who was liberal with his money, but indolent, was assessed for a like amount. "Double the sum," said Burr, "and tell him he will not be expected to do any work, except to occasionally attend the committee room and fold tickets." It resulted as Burr predicted. The lazy man paid the money with a smile, and the stingy man worked day and night. It perhaps required greater adroitness and perseverance to unite the discordant factions of the Clintons, Livingstons and Gates, but this faculty for details shows what Burr could do, and accounts in part for his rapid rise.

As regards the moral qualities of the two men Hamilton had the greater Conscientiousness, Burr the greater Benevolence; Hamilton the greater Veneration, Burr the greater Spirituality. Hamilton was disposed to be austere, Burr never forgot to be courteous and considerate even to his enemies. His self-composure was rarely ruffled in the least. Hamilton was apt to be much absorbed. His eyes were over-shadowed with hanging brows and often intent and regardless of what

was passing around him. George Washington Custis states that he had seen him "push directly through his family to his study without apparently noticing any one. In the street he would run against persons, but would not fail to offer an apology."

Hamilton had great respect for antiquity, former usages, precedent, Burr cared nothing for any of these. He believed in the supremacy of mind, one had no confidence in the strength of the monarchical principle in the future. Hamilton was a Federalist, Burr was a thorough Democrat, even more so than Jefferson himself. He never at any moment of his life had any doubt about the success of our arms in the Revolution, or of our political party. He seems to have seen the result clearly from the beginning.

Burr was ahead in his supreme moral courage. He dared to live up to his convictions. Hamilton was a great and courageous man, but he was not great enough or courageous enough to refrain from the petty aspersions of a jealous mind; he would not disclaim the ignominious charges he had openly made against his cool and courteous rival, and yet he admitted that he believed Burr's private character to be above reproach. He never learned to be so completely the master of himself as did Burr. Hamilton had erected propriety into a divinity and professed to be averse to the principle of dwelling, yet he did not dare to disobey the behest of public opinion, which required the challenged man to go out.

The worst faults of these two men were their licentiousness. Popular rumor perhaps exaggerated their vices, but both were undoubtedly men of the greatest gallantry. The most absurd and atrocious stories were circulated regarding them. Current tales about people are always exaggerated; but the peculiar qualities which are picked out for exaggeration are a pretty good index of a man's real character. Besides their phrenological development shows both men to

have possessed very large Amativeness. This is indicated not only by the massive chins and breadth and fullness of the lips, but also by the occipital swellings backward and inward of the mastoid processes and downward from the occipital process. In their defence we have only to say that gallantry in their day, while not classed among the necessary virtues of society, was not considered as it is now—the total demoralizer of the heart, and the debaucher of honor. And there have been a hundred men in our political world morally as unscrupulous as themselves who passed the censorious public unchallenged.

In the respective career of these men there is a resemblance that will not fail to attract the attention of the student. Born within a year of each other, they received the same training, embarked upon the same career, passed through the same experiences and won similar successes. They were rivals from the first. They were the two most gifted and brilliant men in America. Their rise was the most rapid of any statesmen in this country. Their stars seemed to fairly rush into the zenith. Successful and gallant soldiers at the age of twenty-five. the idols of their countrymen, they did

not halt a moment. Before they were thirty-five Burr was in Congress, and Hamilton in the Cabinet of Washington. During the fourteen years following they were the most influential, if not the most prominent men in America. Hamilton was really the leader of the Federalists more than Adams, or Jay, or Marshall; among the Democrats there was no one so active as Burr. The Presidential campaign of 1800 was one of the most exciting periods in our nation's history. Against what appeared overwhelming odds Burr by masterly tactics led the Democrats to victory. The Presidency should have been given to him, and only that the stars fought against him—the stars and Alexander Hamilton—he would have sat in the chair of Washington. Hamilton hated Jefferson, but he hated Burr more, and through his influence Mr. Morris, the Federalist representative from Vermont absented himself, the four Federalists from Maryland voted for Jefferson, and those from Delaware and South Carolina dropped blank ballots into the box. So the man who stood removed by only one vote from the Presidency lost the prize he fought for and became the third vice-President of the United States.

FRED MYRON COLBY.

CHARACTER IN THE VOICE.

THE human voice has its physiological side, which demands attention from orators and actors. The various modifications of voice, depending upon modifications of the vocal organs, tend when frequently repeated to fix themselves as permanent voice characteristics. Since these qualities of voice express the various mental states, their prevalence will indicate what have been the ruling passions of the speaker. That is, the quality of voice and manner of delivery will indicate character. Listen to the voices of your friends and acquaintances and observe how they differ.

We seldom fail to tell a friend by his voice, even if we can not see him. The

sound of some voices repel, while that of others attracts us. If there is anything peculiar about the voices of those we meet for the first time, we notice it and judge accordingly. Some voices have an honest, straight-forward and frank ring about them which immediately wins our confidence and esteem. Some are sympathetic and attract us like a magnet; they exert an undefinable and mysterious power. Jenny Lind had such a voice. You will sometimes meet with men and women who can hold you with the sound of their voices. Great orators owe much of their power to the magnetic and sympathetic tone of their voices. We can generally tell by the

sound of his voice whether a speaker will please us, when he has uttered a few sentences. Voices differ in timbre or quality ; there are smooth, clear, round full voices, which seem to swell out from a man of round and full character. They delight, charm and fascinate us. They express power, pathos, and almost every feeling of the human heart. Some are not so full ; but are sweet and musical and we linger with fondness upon their accents. It is hard to banish the memory of such voices, long after we have ceased to hear them. When separated from their possessors by oceans, continents, or even the grave, their magic sounds still echo in our ears. Some voices seem to fill our imagination with melody and to impress the very words on the human soul. Add to this rich musical quality the vibration of sympathy, and the voice becomes well-nigh irresistible. The voices of women often possess such a combination, and woe to the man who falls under its spell. It is more entrancing than the glance of the eye or the smile on the lip. It can express love better than any gesture, and can captivate the heart as easily as a spider ensnares a fly. All men who wish to lead a free, untrammelled life should shun women possessed of such voices. There are voices which attract, because they are caressing and soothing. They pet and plead you into obedience and performance of their will. Their owners are generally full of whims, desires, and caprices, that would be nothing ; but the worst of it is, they always strive to make you accomplish their desires. If you refuse they have such a caressing, coaxing way that your only safety lies in flight. These voices, though not so powerful or fascinating as the musico-sympathetic, are equally dangerous.

The *playful* voice is a sort of rollicking, devil-may-care voice. One can not help liking it. Still it is not a dangerous voice ; it will never bring you into a witches' ring or wizard's circle, or deprive you of your reason. Why ? Because

its tones are full of warning ; it tells of the life its possessor leads, and it always invites to contradiction. Its possessor is too happy and gay to find fault with you if you contradict him. Contradiction supplies him with mirth and provoking tones. It is a happy voice ; would to heaven there were more of them ! When a young woman possesses this kind of voice, she will not dethrone your reason as easily as if she possessed the musico-sympathetic or caressing voice, but still you will always find her entertaining. You will long for her presence, and if naturally sad and despondent, she will be better medicine than Indian herbs plucked under the moon's eclipse, or under the glare of a dog-sun.

The *plaintive* voice—sorrow, wounded love, unrequited affection or disappointment has made this kind of voice. The possessors seem as if they had spent their time wandering through life looking for a mate or congenial companion and finding none ; such voices are not uncommon, and they even mingle with other voices, and wonderful to tell, it does not mar but improves the charm of them. It adds a peculiar fascination to all except the mirthful or rollicking voice ; when that becomes plaintive, it is so unnatural that you expect the heavens to fall.

There are voices which puzzle us and disappoint us, because they come from those who should possess voices of very different quality. A high, squeaking voice is a disgrace to a man of full, sound constitution. He should have a full, round voice ; there must be some physiological impediment, or bad habit which has made this kind of voice. What shall we say of a young and beautiful girl who dines your sensibilities with a hoarse, rude, chest voice instead of soothing them with a clear, musical voice. We may venture to predict that she keeps disreputable company, uses slang, and imitates the actions, gestures, and tones of men. We abhor such a voice in a woman ; it is entirely without fascination and

may frighten, but never can charm young men. There are voices which so far from charming our sensibilities, sound the notes of warning. They croak like the raven, hiss like the serpent, and sputter like the toad. Some voices irritate and some soothe; some grate on the sensitive nerves and set the teeth on edge. Some make one shiver and turn cold; others rub your sensibilities like a file in the teeth of a dull saw.

The *deep, guttural* and *pectoral* voice bids you "beware," and tells you your life is not worth a pin-fee when its owner is under the influence of passion.

The *snaky-Snodgrass* voice, a half whispering voice, is a voice that speaks in hesitating yet honeyed accents of cunning. Secrecy and stratagem are as plainly evinced by such a voice as by the furtive glance and sidelong expression of the eye which generally accompanies it. Sometimes the voice assumes tones of sympathy for sinister motives, but a practiced ear can readily detect them.

The *hypocritical* voice resembles the strategic voice somewhat, but it is rounder, fuller and more varied. It has all the craft and cunning of the former with some of the melody and honesty of the other voices; but it is all feigned and imitated; still it requires considerable skill to detect the fraud. Thousands are constantly hoodwinked and befooled by this voice. No wonder, for it is as honest, sympathetic and loving as imitation and experience can make it, and there are lots of people who worship art and love counterfeit coin better than real copper pennies. The glitter of the tinsel and the glow of the bauble have a peculiar fascination for them. Let them be fooled, who cares? If society will run mad after the dudish imbecile and the aristocratic fop, let society suffer until a healthier atmosphere settles down upon it. To honest people who hate sham, tinsel and show; who hate fawning, flattering and imitations of virtue, we would tell how to detect the

hypocritical voice. The emotions it feigns are always a little overdone; it is too ardent, too sympathetic, too self-sacrificing, too honest to be real. Observe the harsh undertone which no amount of imitation can conceal, a voice within a voice—that is the real voice, and according to its quality will be the character. If that is hard, firm and metallic, young maiden, do not trust its possessor; you will find him utterly devoid of sympathy and feeling. He will use you for his pleasure and grind your beauty and honor on the slab-stones of avarice, lust and ambition. Beware of him, men of business; for in trade he will take an unfair advantage. Beware of him, young man; for he will defame and shatter your fair name and character in order to advance his own vile ambition. The hypocritical voice is often a passport to society, and when its possessor avails himself of the artifices, sham pretences, polish and address of cultivated circles, he becomes a power in society. He is regarded as a wise and prudent man, a man of refined and elegant manners, but his thoughts are as black as night and the social circles which now worship him will some day be stifled with the odor of his foul breath. The hypocritical voice can readily imitate all the emotions and passion of the human soul except the pathetic. Nature by a wise provision has so constituted men that they cannot express the genuine emotions of pity, sympathy, love and philanthropy unless they feel such passions. All imitations are easily seen; the chromatic wail, broken voice, stifled sob, without the soul-subduing under-current of feeling, provokes laughter, not tears.

The *company* voice is akin to this voice, but it is not so mischievous. Its aim is not to advance ambitious projects, but to place people at their ease. The company voice, like the company dress, is only put on for the occasion—a little side-show to attract favorable attention. We all get to know the company voice; and we often laugh at its inconsistent

drollery. Such a voice has wonderful range and compass ; but the trouble is that its deep harsh notes are all at home, and its rich loving stops are all used for the entertainment of company. What an elocutionary entertainment would some people furnish, if they could be heard speaking at home and in company at the same time ! If you could hear the gruff, discontented growl rolled out in a profound bass voice across a table at wife or child ; the rich, melodious “thank you, sir,” “much obliged to you, madam,” sung from the same voice across the banquet table of some social gathering, you would be convinced of the compass, power and variety of expression which the Anglo-Saxon voice possesses. “Hang you women, why don’t you have my coffee hot ?” “Oh, thank you, madam, that coffee is just right ; I always like it a little cold ; it burns the mouth when it is hot, you know.” Just place the right elocutionary tones on these clauses and you will have the finest dramatic entertainment.

The *fawning, flattering* voice is not so elevated as the company voice ; its aim is low and groveling. It is an unmanly voice, expressing cowardice and insincerity ; and yet to those who have large Approbativeness such a voice is grateful music. How many people win access to a rich man’s favor who have nothing to commend them but an empty skull, a flattering voice, and a cringing disposition !

The *combative and aggressive* voice may often be heard, especially in public brawls. How sharp and jagged the consonants ! while the vowels are slapped out with radical or vanishing stress. A moderate endowment of this voice imparts sharpness and life to the other voices.

The *executive* voice is more harsh and sharp than the aggressive and it is impossible to sleep when it rages. It acts on the mind like a strong wind on a stagnant pool, which blows it up into innumerable sharp ripples making it as

keen as a razor. Men with such voices are full of executive power.

The hard, *exacting* voice of the conscientious man is not pleasing to the sinner, especially, if it is the voice of his judge. It has a penetrating quality that makes one feel uncomfortable ; it seems to enter clear through your soul, and find its sinful places. No child loves a father with this quality of voice, especially if stubbornness be added, which is usually the case.

The *reverential or benevolent* voice is much to be preferred. Such a voice our Savior must have had, added to all the good qualities of the other voices. It is soft, winning, mild, persuasive, and at once draws your sympathy, confidence and love. I like to hear this voice in an old man ; a man who has gone through the miseries and hardships of life and still retains the benevolent voice is worthy of love and admiration.

The *spiritual and adoring* voice seems to draw its tones from heaven. It is hard to describe it, for it is really a *sui-generis* voice. It has a melody of its own. Shakespeare must have known such a voice, since he puts into the mouth of Romeo this sentiment : “Such harmony is in immortal souls.”

The *intellectual, matter of fact* voice is not uncommon, even in the pulpit where it is entirely out of place. There is no emotion or life, animation or music in such a voice.

The *fossil* voice. We can endure dryness but never decay. A voice that reminds you only of your frozen grandfathers, has nothing pleasant about it ; yet such voices are not uncommon. Nothing betrays character more fully than the voice. The emotions and passions flow into the voice almost as soon as they flash in the eye.

A strong will can steady the voice, but is powerless to keep it natural, Genuine expression must reveal itself. You may muffle, suppress, veil and bind down the voice, but it will be all in vain, for it will gain intensity and power from the

restraining of the passions, and in its very struggle for freedom will betray the pent-up emotions. The cautious tone and circumflex accent reveal prudence and wisdom as truly as the head reclining forward, or the chin placed upon the fingers. The knitting of the eyebrows, the lips drawn backward and downward can not express firmness more clearly than the decided tones of the voice. In fun and humor the voice expresses as much as the face. The drollest anecdotes fail if not delivered in a proper voice, and pathos must have its voice in order to be felt. So on with all the passions of the human heart ; each has its proper voice. An actor or orator if he wishes to excel in his art must make himself acquainted with these voices. Cultivation improves, but does not eradicate natural qualities.

Artificial voices are mainly the product of training. The voices heard in the pulpit are often of this nature. The holy whine and weeping tones are assumed for the sake of effect. Ridicule and sarcasm directed against these voices have partly banished them.

A *dead-level bass* voice, the result of false elocutionary drill, a few years ago was thought to be the best voice for an orator. Such an opinion is now happily exploded. The orator's voice should be endowed with every good quality, rich, musical, full, sympathetic and powerful.

The *clerical* voice still lives. It is a neat, precise voice, partly natural and partly artificial. It never strikes one as really hearty or sincere, but yet it is not unpleasant, for it indicates a certain degree of refinement. Some clergymen have voices compounded of familiarity, exaggeration and formality, which remind one of conversation with old women in private and bombastic appeals to a congregation. The physician should have a good voice, musical, sweet, full of humor and jovial spirits. Such a voice will do more good than Homeopathic or Allopathic doses.

The *legal* voice is a combination of the

aggressive and unattractive. In general, it can be told to what profession men belong by their voices. The voice also reveals the nation to which a person belongs. The English voice among the educated, especially in Inverness, is round, full and expressive, but loose, flabby and drawling voices are far too common among the English peasantry. The Italian voices are musical. The French voice is rather high and has a nasal resonance. It is sharp, clear and crispy, bright and wide awake. The German voice is guttural. There are voices hard to classify, but which an actor should observe and imitate. Groaning voices, sighing voices, wailing voices, yelping and barking voices like dogs, purring voices like cats, hissing voices like snakes, chattering voices like magpies, cooing voices like doves. Perhaps the best way to classify such voices would be to call them *menagerie* voices, for there are voices which resemble those of almost every animal in the universe. That the voice is an index to the mind is readily shown by the effect of old age, idiocy, and failing mentality on its quality. No idiot has a clear, melodious voice, for mental imbecility clouds and confuses articulation. The harsh scream of the maniac is well-known. A thick, loose and fluffy voice is incompatible with vigorous mentality. No person of prompt and decisive thought hesitates or stutters. *

WHAT MATTERS IT?

Who weeds and prunes the rose?

We stop not to inquire.

For its own beauty's sake

We seek it and admire.

Searchers for truth are we,

E'er anxious to obtain,

Nor care whence or by whom

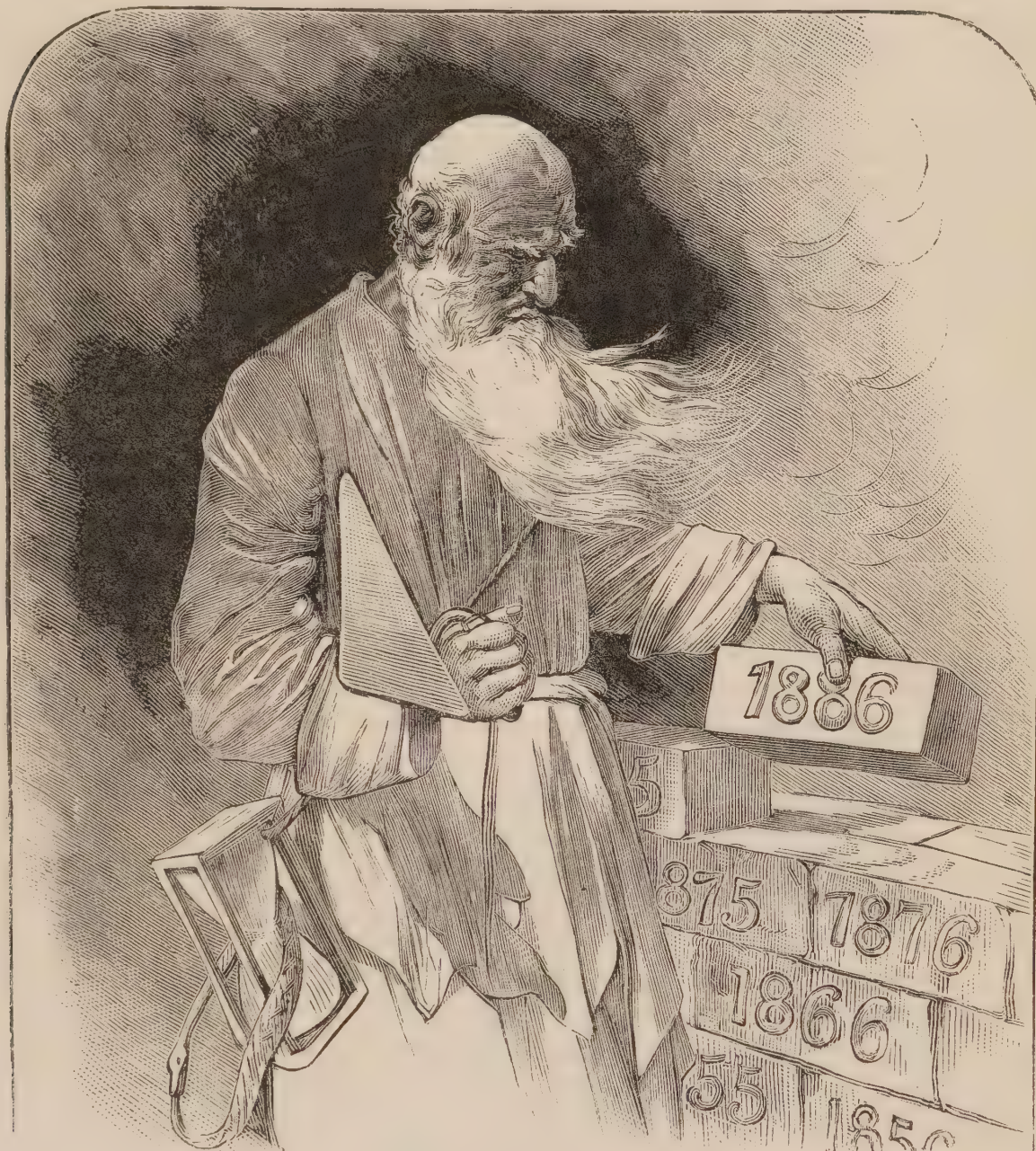
The truth is but made plain.

E. R. SHEPHERD.

* From "ELOCUTION AND ORATORY," a new and original work, illustrated ; by Thomas A. Hyde and William Hyde, pp. 650, price \$2.00. Fowler & Wells Co.

FATHER TIME AND HIS WORK.

WONDERFUL old "Father Time." His scythe lays low the forms we love ; He gathers strength with added years, decrepitude and decay can not touch him. The reverence, born of juvenile ideas, fastened by crude drawings of the gaunt, eager, long-bearded figure and merciless scythe of juvenile literature, but of the deeds of these stilled hands he builds his marvellous temple. No other architect works on the same plan. He has no drawings to study, no specifications to follow, no selections and rejections of materials to decide upon—good



FATHER TIME BUILDING UP THE YEAR.

grows with our growth and strengthens with our strength, until we too wear gray hairs and the scythe comes round our way ; beyond that, Time interests us not, neither cares he for us, unless it be that our achievements are worthy of record.

Father Time has other work than mowing. He builds as busily as he cuts down.

or bad ; the events of the swiftly passing days and months are his to use. His building is not symmetrical, as we view houses, yet every stone fits into its place ; days fit into months, months into years, and at last he rounds out a century, without any trumpeting or display.

We draw deep sighs and say, "Oh,

the world is growing old so fast." Father Time listens to no murmurs ; he bids us change the figures in our dates, and says, "I beseech you, oh my children, give me a finer stone to put next to that." Then he goes on piling up and cementing the materials for the next one. If one stone does not harmonize with its neighbor there is no remedy except to make the next so beautiful that it will overshadow it. Father Time's cement is just what it purports to be—"durable" beyond human ken, no alchemy of human devising can dissolve it ; there can be no re-modeling. The most astute philosopher can not move the smallest fragment of Father Time's building. It has been tried and he smiled at the futility of the attempt, he will not be cajoled into mistakes.

What curious stones he uses ! See, here is one that glistens like a diamond, how smoothly it is polished, how perfect the dimensions ! It is the centre stone of our altars. Look close, it is inscribed "Jesus of Nazareth." In the transparent heart is pictured the history of that wonderful life covering barely thirty-three years, as we reckon days, a life not wholly ended even yet, for the stones added since then bear in a greater or less degree the impression of his words and deeds.

Look at this other one, dark and roughly hewn ; it is minutely inscribed.

Wars devastated the earth, art was paralyzed, philosophy stood aghast, religion was imprisoned, history was blotted on many a page, that future generations might not realize the depth of wrong and iniquity of that time ; but the stone was built in ; there was no appeal from the law. The sun of later days seeks it out and lights up every seam with warnings.

The stone with which the grave, patient, untiring workman will crown his work at the completion of this century will be one of rare brilliance, there will be some dark lines in it and many crimson stains, but there will be glorious re-

cords of advanced art, redeemed literature, awakened philosophy, revised and proven science, the subjugation of every element which goes to make up the perfect whole of this beautiful world to the use of man. We laugh at things which a century ago were sources of terror. We perform daily tasks with elements which not long since were the subjects of fearsome adoration.

We no longer say "It cannot be done," but, "Here's the money, go on and make your idea a fact." The inventor's head is public property, and the public cries continually "Give ! give ! give !" The ability to give seems, as yet, exhaustless. The advancement made in the use of electricity has been so great that any new phase of adaptation fails to surprise us. A tongue of fire girds the world ; the sea is no longer a barrier, but a medium through which all the nations of the earth say to each other, "Good morning and good night," while the same force lights us to bed, guides our wanderings, and will soon cook our breakfasts without the doubtful aid of incompetent fire-makers.

Engineering skill has given proof that there is no river too wide to be bridged, no rock too strong to be riven, no mountain too massive to be pierced. The master spirits of these great enterprises are seeking "other worlds to conquer."

Surgery has advanced far beyond the most ardent dreams of its devotees of fifty years ago. Prejudice is conquered, and sufferers say confidently, "Give the surgeon a chance, I will bear the pain," and so the patient's faithful dog contributes "bone of his bone, and flesh of his flesh," to make a whole man of a mangled one.

"Onward and upward" is becoming the watchword of mankind, while the dogmatics of creed and religion are not so deeply revered, the essence of true religion and a more perfect brotherhood in humanity is spreading and fructifying.

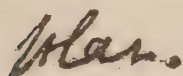
MRS. A. ELMORE.

INDICATIONS OF CHARACTER IN HANDWRITING—NO. 4.

THE letter "l" is so nearly like "b" that no special notice of it is needed, except that when there is any flourish before the loop when it begins a word, we may expect to find a pretentious character with but little taste, and that little spoiled by egotism.

The letters "m" and "n" are to be considered as in the same category with all the final letters. When, however, the third point of the "m" is invariably smaller and finer than the first and second points, the indication is clear that great finesse is possessed by the writer. The letter "o" betrays nothing that will not be noticed in "a," and "p" can be compared with "d." The letter "q" so seldom occurs that I have noticed nothing particular in connection with it, except that it is subject to the general law of all finals.

The small "r" can be made in a variety of ways. Acuteness of observation, combined with grace is shown in the fig. 1, while clearness and firmness are indicated in 2. The latter is from an addressed



1.



2.

envelope by a most distinguished debater and lecturer. The former is from the writing of the eminent English physician, Dr. B. W. Richardson, F.R.C.S., etc.

The letter "s" indicates much, for it occurs frequently and expresses various types of character and intellect, although the small letters do not indicate so much as the capitals. When formed in a rounded manner, we have an indication of indolence and love of ease, if gracefully joined to the next letter, a strong suggestion of flowing ideas with grace and elegance. When in the middle of a word, it is allowed to terminate abruptly, and the other indications of the writing denote nervous energy, we may look for impatience, combined with carelessness

in the disposition of the writer. But if in the center of a word the dot of the letter is carefully made, as in 3 from the MS. of "Home Sweet Home," by John Howard Payne, it is a sure sign of a thoughtful, meditative disposition, one who is scrupulously exact in little things. In the letter "t" there is much to engage the attention of the graphiologist, for in the manner of crossing the letter will be found indications of the possession or lack of will power. As this is a most important element of character, it is of the utmost importance to closely observe the various significations. Of it Miss Baughan says:—"From the faint and almost imperceptible bar drawn by the hands of persons of little or no volition, to the enormous, thick and sometimes squarely-terminating bars of despotic natures, the small letter "t" receives all the movements of the will and betrays them to the graphiologist.

In 4 we have the signature in full of Queen Victoria, of England. This is her majesty's official signature, and therefore does not reveal ~~seems~~ all that her general hand-

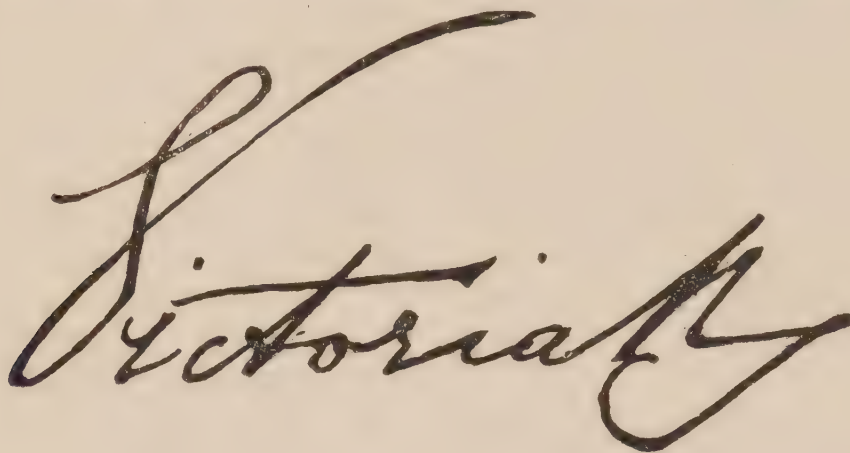
3.

writing does, yet the letter "t" serves to explain our idea. The letter is formed strongly and boldly. No hesitation or indecision is shown, clearly indicating the determination and energy of Victoria. The fact that the bar of the "t" terminates thicker than its commencement reveals the will power for which she is noted. Firmness almost to obstinacy is shown, and were it not that other qualities of mind guide and govern this will it would be dangerous to attempt to cross or frustrate her majesty.

When the letter "t" is barred by long strokes flying far above the letter, so far as not even to touch its summit, it means a vivacious, ardent, but not obstinate will. A bar crushed down upon the letter, but short and thick, indicates a will both absolute and obstinate, when

the stroke finishes by a sort of little crooked line, somewhat resembling a hook, it increases the significance of the boldness of the stroke, and suggests a will as tenacious and obstinate as the short heavy low bar, only there is in such a case a greater quickness of temper. Of persons who habitually bar their small letter "t" in this fashion Miss Baughan says, "they are not the pleasantest members of a family circle." When the bars are generally thicker

it will be remarked, is even heavier than the downstroke which it crosses. 7. The letter "t" in the writing of General Moreau, taken from the fac-simile of a letter written to him by an intimate friend. Here we have in this small letter which is strongly barred and very near the summit of the letter, though not above it (in which case it would have quite another signification), an indication of despotic will. This man, if his handwriting presented no redeeming traits of

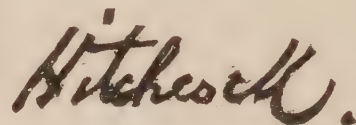


4.

than any downstroke in the writing, an obstinate mulish disposition may be looked for, but when the cross stroke is lighter, a yielding tender disposition. If the termination of the bar has an upward tendency, ambition is indicated, and if a downward tendency, the reverse. These two latter indications must always be considered in relation to the general characteristics of the writing,

The "t" of 5 indicates great strength of will, but being in harmony with the rest of the writing, denotes a uniformity of disposition. It is from the signature of Rev. Boswell D. Hitchcock, D.D., President of the Union Theological Seminary, New York. The next four illustrations (6, 7, 8, 9,) and the indications borne by them I take verbatim from Miss Baughan; 6. an example of the small letter "t" from the handwriting of the late Emperor Nicholas, of Russia. A "t" strongly barred which gives the character of absolute despotism, intensified by the thickness of the stroke which,

tenderness and gentleness would be a domestic tyrant. We have here in Lord Cork's writing a small letter "t" expressive of the reverse of the two preceding examples. A letter "t" barred with a light and slender line, growing finer towards its termination indicating feeble



5.

will, and a total want of energy in the character; as the rest of the signature shows extreme tenderness and gentleness this weak volition has nothing to correct



6.



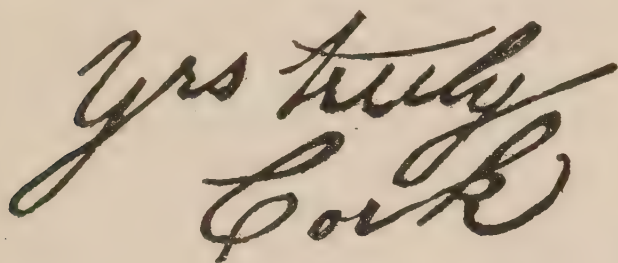
7.

it in point of force or any other quality. There is a great deal of elegance and cultivation of mind suggested by the graceful and rounded curves of the capital C, and in the whole formation of the small letter "k."

To this delineation I would like to add

that the upward tendency of the bar of the "t," and the ardor shown in the bold upstroke of the "k," would to me denote an ambition and ardor, that when aroused would in a measure remedy the

of will-power, and it may mean any of these things. I have been thus exhaustive in the treating of indications of the letter "t," as too much importance can not be attached to it.



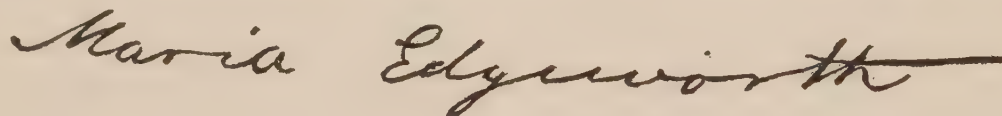
8.

lack of will-power so apparent in the feebleness of the bar of the "t."

9. The small "t" from the letter of an unknown person. We give here as the example of a letter crossed very low, a sign typical of choleric will, more especially if prolonged and cutting (as is seen in this example) the tops of the lower letters. This person is one to be avoided in his anger. 10. The signature of Maria

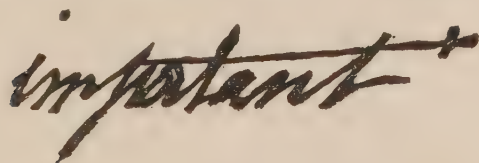
The letter "u" is subject to the same rules as "n." The letter "v" when connected by the terminal loop with the next letter indicates a flowing sequence of ideas; if on the contrary the loop flies wildly into the air above the letters in the line, it indicates a vivid, but ill-regulated imagination. Should no loop be formed, but the letter be joined to the next letter, without any regard to it, generally the disposition will be found to be one of misdirected energy, or carelessness.

The letter "w" follows all the rules given for the other small letters, and it would have the same significance as the small letters "m" and "n" but that, as it seldom, if ever, occurs as a final—as



10.

Edgeworth, an eminent writer of the last generation; the "t" in this specimen, in its long flowing bar, combined with the indications contained in the other letters, shows generosity of disposition and grace of refinement in a large degree in harmony with a will that knows how to be firm when necessary. The rise and



9.

fall in the curve of the bar indicates a softened ambition, or an ambition perfectly under the control of the higher faculties.

When a "t" is seldom crossed the general indications of the whole of the writing must be noted to discover whether it signifies indolence, a nervous energy impatient of detail, or a total lack

the two letters above named so frequently do—it has not quite the same value to the graphiologist. The letter "x" is subject to the same rules as the letter "c" Should the letter be always made angular in form, tenacity of purpose is indicated. The letter "y" is subject to the rules governing "g" and "f," and has much significance in its downstrokes. When it terminates with a sharp, down stroke line, unrelieved by any curve or return line, it is indicative of extreme economy in the writer; of thrift almost to sordidness. When it terminates in a small sharp crook, that is, with a short angular return of the pen, of a hooked form, it is still indicative of an economical turn of mind, but combined with obstinacy. A woman whose handwriting continually showed this form in its small letter "y" would not be a pleasant *ménagère*. Long flowing

down strokes with the return stroke joining the next letter signify sequence of ideas, and, where the lines all slope in unison with the rest of the writing, a tender, sensitive nature with a certain elegance of mind. If the lines are long

11.

12.

but irregularly so, and wildly running into the forms of the letters beneath, such movement and disorder in the writing would indicate it as that of a tender and sensitive person possessing a vivid, but regulated imagination. The graceful,

and self-esteem that is objectionable. 11. is a small "z" from Voltaire's handwriting.

Firmness in the decided downstroke is shown, and imagination in its disproportionately long terminating downstroke, while the letter being made below the others denotes a despondency of mind, which may have occasionally influenced the great French philosopher.

12, an intermediate small "z" in the writing of an artist as yet unknown to fame, has grace and sense of beauty in its harmonious form, and imagination in its downstroke, which is rather an unusual form of this letter.

Having now exhausted the alphabet in

14.

flowing terminations shown by the signature of Lord Shaftesbury, the eminent philanthropist, are indicative of the generous, tender and gentle nature of the noble earl, while they also denote the refinement and ardor of his

13.

temperament. The thick termination which so often occurs in his writing denotes a strength of will that can be absolutely immovable, if the other and noble faculties of the mind call out such obstinacy.

its small letters, I will close this article by a few general observations in finals. In determining the indications of any handwriting, too great importance cannot be attached to the various methods of making the finals. Upon a close observance of them will depend a great deal of the observer's accuracy. Finals reveal much that the "body" of the writing only faintly indicates.

The difference in the manner of making final letters must be apparent to the most careless observer. There are but few who complete their words with the fine delicate upstroke, so much insisted upon by the writing master. In its

15.

The letter "z" does not occur often, yet it reveals much, especially in the handwriting of a conceited person; any excess of flourish denotes a boastfulness

place we find an abrupt ending without any upstroke whatever—an angular stroke jumping away from the letter to which it belongs as if ashamed of it—a

graceful curve or a disgraceful flourish—a wide sweeping up, down, or out-stroke—or a fantastic wriggle covering the major part of the word, as if anxious to protect it from harm. These are but few of the many ways of making a final letter. Each of these has a significance peculiarly its own. The following series of examples will serve to illustrate to us the application of the main principles. These should be thoroughly mastered as being one of the chief branches of the indications of certain mental qualifications.

When the finals stop short without any upstroke, as if the writer were afraid of

British will

16.

using a drop more of his ink than was necessary, we have an unerring sign of rigid economy. See 13.

Should it be still more suppressed, a sordid economy almost amounting to avarice, combined with a miserable parsimoniousness that will “squeeze milk out of a paving stone” if possible, and that eventually develops a full fledged “miser.” If these suppressed terminations are written with a thick and heavy stroke, the indications are that a strong

clear-vision lie

17.

will governs the economy, so that at times there may be apparently no parsimony. If on the other hand the finals are thin and weak, then nothing but the meanest kind of miserliness can be expected.

The thick and abrupt termination often indicates a disposition to yield to anger, although generally it is a quick angular “crook” as a final, that reveals this tendency. The gradations from honest economy (which is but prudence) to sordid thrift, and thence to avarice, are marked by the greater or less freedom in the length of the finals. When the finals are long, very much rounded

and raised, we have signs typical of generosity and benevolence. Miss Frances E. Willard’s signature brings out these traits fully. Take the whole signature and the fullness and grace of the ter-

*trial name
interested*

18.

minals speak distinctly of these characteristics. In the writing of Lord Shaftesbury we have flowing generous terminals in all the letters which loop under the line, and were these loops to be fully made instead of firmly terminating as they do, we should have a generosity which the slightest appearance of distress would arouse and call into exercise. As it is, however, the better judgment must be satisfied of the worthiness of the object or generous and benevolent impulses are followed.

If the finals are not only rounded and raised, but take up a long space between the words, are in fact very pronounced, generosity becomes prodigality, and should the rest of the writing give a total absence of the signs typical of prudence it would mean extravagance almost to dishonesty. 15, from the pen of a lady in lowly circumstances, as well as others fully illustrate this prodigality of disposition, although the finals in “15” are not rounded and raised at all. Indeed

known

19.

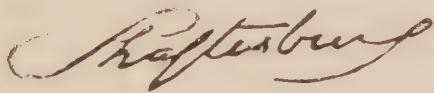
each terminal letter taken separately in writing, reveals considerable secretiveness and finesse. And yet, oppressed with the care of a large family and with a husband who seldom contributes a cent to the family exchequer, she delights in generous acts, and they come from her as spontaneously as poetry from Byron.

If the finals are angular and moder-

ately ascendant and terminate words which have also an ascendant movement it is the sign of quickness of temper which is swift to anger, unless there are redeeming features, or rather indications in the main body of the writing that denote a restraining will-power.

16. from the pen of an accomplished writer. Only the terminal letters of the two words taken from a short note to the author show this quickness of temper. Hence, while these two words illustrate the general idea I wish to convey, the main writing in this case would indicate the temper to be well controlled.

Where the finals are well rounded and gentle, the curves even and flowing, we have a gentle, benevolent nature, as seen in 17 from a manuscript of Bryant's. The joining together of the last two words indicates a ready utterance—or a flowing sequence of ideas. Such writing as this is typical of elegance of mind and perception of form. A reference to the writing of Shaftesbury will reveal much of these qualities, although the form ter-



21.

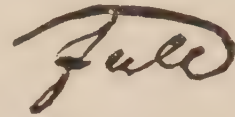
minal suggests these as all other characteristics, to be perfectly under control. Miss Baughan says, "The writing of musicians of the second order, where imagination is not dominant is apt to take this form in the finals;" this type, in the extreme, indicates indolence.

When the finals invariably ascend from the main writing, ambition is shown, though it is liable to be erratic and ill-guided. When the general writing indicates grace, refinement and other noble qualities, the ambition will, at least, be a laudable desire to improve the mind and nerve for useful purposes.

18—three words from the pen of a lady who began life in very adverse circumstances. She had received a good education, and for a number of years lived an almost solitary life in the Sierra Nevada mountains, at a way station fifty

miles from the nearest town. Ambition is shown in the upraised finals, yet it is erratic and ill-guided. This is doubtless owing to the lack of advantages—want of cultivation, etc.—for considering her disadvantages this lady has made wonderful intellectual and spiritual progress.

Here is the signature of Christopher Wordsworth, late Lord Bishop of Lincoln (England). The writing throughout is indicative of the most intense ambi-



20.

tion, though that quality is somewhat counterbalanced by restraining influences almost equally potent. There is strong will shown in the angularity of the letters, and some secretiveness in the way they are "hugged" together. The graceful "C" and "L" indicate a refinement, grace and tenderness that make the ambition but a spur to nobler and better things.

In writing where the finals are sharply angular, rising above the level of the other letters, an ardent but somewhat obstinate nature is revealed. Such writers do not easily abandon an idea when once they have taken it up. When, on the other hand, the finals rise in curved lines as in 20; there is ardent nature, impulsiveness and some obstinacy, with a great deal of fool-hardiness. Such persons are liable to say things they do not really mean, and if other indications denote an affectionate and tender disposition, they are the most effusive talkers,—very loud in their professions of love and esteem, but rather to be feared.

When the finals take curves which are broken, as if the pen had been intended to describe a series of angles, the writers are generally persons with little or no taste, for it is the sign, unless other points in the writing redeem it, of absence of cultivation, of harshness and want of tact and sympathy.

GEORGE W. JAMES, F.R.S.A., F.R.H.S.

THE VOICE OF A FRIEND.

Oh, sweet to me is the voice of a friend
Whose thoughts and whose deeds in har-
mony blend,
Whatever his station may be.

We're brothers and sisters — children of
God—

And if, or if not, we're sons of God,
We each can be happy and free.

We can speak a kind word, do a good deed,
And reap from the planting bounteous seed,
That will aid in making us free.

We sing for the weary, pray for the weak,
And jewels of truth for humanity seek,
And ever true happiness see.

For happiness springs from labor of worth,
And every good deed we do upon earth

The angels above us will see.

When cheerful and patient, loving and mild,
We turn to our tasks with the trust of a
child,

Then the white-winged watchers are nigh.

They know every thought and beautiful
deed,

Their love tablets note whatsoever we need,
And, lo! ere we know it, 'tis nigh.

Sometimes 'tis a pleasure, sometimes a pain;
'Tis sunshine to-day, to-morrow 'tis rain,
'Tis best, whatsoever may come.

God, on whose bounty and wisdom we call,
Gives love not to one—he loveth us all,

With a love that is leading us home.

BELLE BUSH.

RUTH'S MISTAKE.

I THINK, Ruth, you make a great mis-
take in your idea of giving," said
Mrs. Brown, "I don't believe in treat-
ing other people better than ourselves."

"I believe," said Ruth, "we should
give a slip of every joy we have to some
one who has it not, and then, how many
hearts might have a little garden of joy
blooming about them. If we did all the
kind things we could, just for one day,
we would be surprised at the pleasure we
gave, the pain we soothed without its
having cost us one cent. It is delightful
to give beautiful gifts once a year to
those we love best, but we might have a
beautiful Christmas tree growing down
deep in our hearts, all the year round,
bearing the golden fruits of kindness."

"We don't all have the opportunity,"
said Mrs. Brown.

"Opportunity is a very comprehensive
word," said Ruth, "it has many different
meanings. To be considerate of others'
feelings often makes them happier than
to give them an expensive present. Con-
sideration is the greatest charm in any
friend. When we are weary or de-
pressed, and we feel as if we are worth so
little and can do so little, we are rested

and comforted at the side of one who
is always considerate of our feelings,
and whose words of sympathetic encour-
agement are invaluable to us. The habit
of speaking kindly and cordially to those
less fortunate than ourselves is a source
of untold comfort to others. We all prize
attention from those who are in a higher
position, who have more wealth and
reputation than ourselves. As we prize it
so we should give it, and thus up and
down the ladder of life, from the highest
to the lowest, the angel of content might
go. We are too apt to think that what
we have in great abundance others do
not care for. We forget to ask those
who always must walk to ride with us
in our carriage, or to offer to those who
never own a plant the flowers blooming
so luxuriantly in our own beautiful gar-
den. Two years ago, a young girl came
to me who interested me very much. She
had been taking painting lessons, hoping
in time by her proficiency in the art to
support herself and her invalid mother.
To earn money for present expenses, for
the days when not painting, she tried to
sell photographs of celebrities. I had al-
ready supplied myself with all the pic-

tures I could afford, but she came in and told me her story. Her father's sudden death with an unpaid mortgage on their beautiful country home, caused them finally to lose all their property. They were living now in two sunless back rooms, where no flower ever grew. The girl had just been through W— avenue, where she saw a house with hundreds of white roses growing over the windows and door, just as they had grown at the old country home. She asked an elegantly dressed lady standing in the door if she would give her one of the white roses for her sick mother.

"We never give to street beggars, girl," said the lady.

"But won't you please sell me one, my mother is so very ill?"

"We never cut our roses, girl, we always let them grow. The girl passed on and came to me, after calling at several houses and selling no pictures. In my garden were salvias, pansies, mignonettes, roses, heliotropes and fuchsias. I cut off the choicest flowers with many rose-geranium leaves, and gave the girl a large bouquet. I never saw a brighter face than hers as she took the flowers; her eyes full of happy tears, and she said "Mother will be so delighted, she has not had a flower in so long." "Only a few days my flowers gave her comfort, for the mother died in just a week, with her face turned to the flowers, and in the casket in her folded hands were my white rosebuds. I was glad my flowers had cheered and brightened that dark, narrow sick room, and not wasted their sweetness in my garden. You know the florists tell us the more you cut the flowers in full bloom, the more will come. The girl had one of the loveliest faces I ever saw. She is at the Cooper Institute now and she painted those hollyhocks for me on my table.

"You remember one time when there was so much excitement during the war and some of the colored people at the North were so teased and tormented, I went one day to see an old colored wo-

man. She was nearly white, and had she been becomingly dressed, you would have called her noble looking. Her grandson had had so many stones thrown at him in the street that she was afraid to have him go out alone. She did washing and ironing to support herself and the boy, and on account of the boy's trouble, she often felt forlorn and discouraged, yet still she kept an unshaken faith in God. I thought one day a little extra attention, a surprise might do her good, so I gathered a large bunch of roses, and going in very softly through her half-open door and stealing in behind her, I laid on the table where she was ironing my bunch of roses.

"She looked up, and if ever a face was illuminated and transfigured hers was. Before her tired eyes all day had been the big basket of clothes, and now she looked as if she had seen the face of an angel. 'Shut all de windows and de doors,' she cried, 'and let de room smell of de roses. Since I was grow'd up no one has ever giv'n me a rose. Me, roses,' she said; 'me, an old black woman, de hebenly Massa send em jus cus I so down-hearted to-day. I neber'll let go his hand any more, if its berry dark—but dis war aint Massa Linkum's war, it aint Massa Jonsing's war, it is de Lord Jehobah, de Almighty's war. When all dese roses come, I aint goin to disbelieve Him any more. I want spectin nothin but trouble to-day, mom, some more of them stuns I spected, but when roses comes, and you aint sent for em, de good Lord hisself sends em. I don't care much what folks thinks or don't think if the Lord only thinks on me, and he made them roses jus for me. 'Pears like as if there was a path right from Hebben to me clear through the clouds.'

"I have made many bouquets for weddings and receptions, and for wealthy friends, but none have ever given me as much pleasure as the flowers I gave the poor girl and the roses I took to old Sarah. I have lost my own home now,

with all its wealth of flowers, but it is pleasure to think that I was once able to light up so many lonely homes with the sweet faces of my roses and violets.

"In perfect health and surrounded with comforts ourselves, we can't realize how much good a little unexpected kindness can do another. I was very ill for weeks a year ago. I could not raise my head. The least little thing might snap the cord that bound me to life. One Sunday night with the house very still, and the light turned down, I was thinking of all that I had loved and lost and how soon I might meet them, when just at midnight the door opened, and a gentle hand laid on the bed before me a large, glowing, beautiful cross of flowers. I was so surprised and delighted at the coming of this angel guest in the late, lonely night, like a shock of joy it thrilled me. This lovely cross of flowers had been on the altar in the church all day, and as if bedewed with the sweet breath of the evening song and prayer, it came to me with its balmy benediction.

"From that hour I felt brighter and better. Every time I think of it now I feel the same thrill of delight and love. I was shut in from the world of beauty without, and the flowers brought to me at midnight a little world of beauty of my own. I shall always love the sweet face of the kind friend who brought the gift. I felt as if I was drifting away from earth, and these flowers called me back to life again."

"Dear me," said Mrs. Brown, "if flowers can do so much good I might have given away thousands of roses that died on our bushes; and it was real wicked to have so many grapes wasted on the vines, but I can't think of other people's wants much with my four children to see to. One gets over the whooping cough, and another begins with the measles; then comes the scarlet fever, or the mumps, and we are always expecting the croup or pneumonia; and then the dresses—you know little girls dress more elegantly and expensively

now than you and I did when we were young, and if you attend a stylish church you must keep stylish yourself. I must embroider for New Years a sofa pillow for Mrs. Leslie; she has several now and I want mine to be the handsomest; and I must finish that crazy quilt for Brown's aunt's cousin. I want it prettier than any she has. This fancy work tires me so, I feel after New Year's that my eyes are almost used up."

"Excuse me if I speak a little plainly," said Ruth, "but why is it not better to be sweetening some of life's bitter cups than to be adding joys to cups already full of blessings. There is too much giving from the rich to the rich. Mrs. Howard makes an elegant sofa pillow for Mrs. Hunt, and Mrs. Hunt embroiders a beautiful table-cover for Mrs. Howard, and all the Howards and Hunts are giving each other elegant presents, when they all have more tidies and table-covers now than they know what to do with. The little Howards have so many dolls they don't care for another, unless it would walk up and down stairs and play on the piano; while poor little Mary Minton loves her corn-cob doll with its charcoal eyes and nose more than Mary Howard loves her elegant doll, with its eyeglass and fan and jewel case. Mary Minton's corn-cob baby sleeps with her every night, and she hugs and kisses it ever so many times a day. If Mary Howard would take her one of her last year's dolls with real curls, and real feathers in its French hat, I think little Mary would be happier than all the Howards and Hunts. But while these worsted roses are wreathing around these endless tidies and table-covers, a lonely sick lady around the corner has no flannel, and no money to buy it. People that always have money can't realize the feelings of a refined woman left all alone, often without a dollar. I know of one who has met with great reverses, who almost worships flowers. She says when she looks in at the florist's windows she feels as if she could clasp to her heart

the heliotropes and violets—but everything has to go for rent, and clothes and food; and flowers and books are as far beyond her getting, as the stars in the blue sky above her head.

“But what can I do,” said Mrs. Brown.

“You can cut off a slip from your scarlet geranium and plant it in one of the pots piled away in your cellar. There is room for one with a bright bud on it in the sick girl’s window in the next street. She will watch its opening and feel better every day for it; and Susan just across from her, making those calico shirts for ten cents a piece, with her six little children about her, would be so glad to have some of that great pile of papers in your closet. Those illustrated weeklies would please the little folks. Send them in a neat little package, and do up one of the handsomest papers and put Susan’s whole name on it, and let the postman leave it. She will feel highly honored, she will almost think it was printed on purpose for her. That old ‘Pilgrim’s Progress’ that has so long been shut up in the dark corner of your bookcase, it really needs to see daylight; take it to the old Grandmother Green. She is confined to her chair all day by rheumatism. She will look over and over at those pictures of Mercy and the lions, and you can soothe her way to the celestial city, by leaving old John Bunyan to talk with her for awhile. He will tell her that though she eat the crust of care, that the milk and honey are beyond the wilderness. She has nothing to look at now but that picture of a tombstone on her wall with her three dead children’s names on it, and she will sit a half an hour looking at that first picture of Bunyan, sitting in his prison holding his hand tenderly on his little child’s curls, while the Great Father’s sunlight is streaming down upon his own persecuted head through the narrow prison window.

“We can give a crumb of comfort in some way to every child of earth that sits by our hearthstone, and pour out for

him the wine and oil of sympathy that we too often keep locked away in our heart’s hidden closet. We can share with them our preserved peace, our gathered joys; help them to dry away tears, to sweeten affliction, and give them the fragments of our rich experience to help them through their heartaches and temptations. It is better comfort for them than our brightest company silver to bring out and brighten up our faith jewels, and show them how they sparkle in life’s dark. A taste of our joys, the cordial of our welcome, and the balm of our sympathy they will prize more, and remember longer than Delmonico’s most elaborate dinner—but I don’t want to preach you a sermon.”

“I’ll try and profit by it,” said Mrs. Brown, “all the treasures I can find, that I do not need. I’ll gather up and send to the highway and hedge people. The brown and the scarlet geraniums and the chromos, and the newspapers, gowns and the sacques and Ida’s dolls and Sam’s tops and balls, shall go somewhere before New Year’s. If you know of any poor lady or delicate young girl, I will take them out riding two days in every week. I will take somebody. The poor things shall ride to their hearts content, and take home some of my books and flowers if they like. So I’ll end this year, and so I’ll begin another. I have not done much out of my own circle, and if I should die to-day I don’t know of one single poor soul who would shed a tear over my grave. If giving to the poor is lending to the Lord, I have been very stingy to the Lord; but I don’t like to think of past mistakes. Now, won’t you read me a story, one of the stories you have translated from Aguste Blanche. I came in to hear it—we have half an hour yet.”

“I will read you,” said Ruth, “a simple little love story of Stockholm life.”

A merchant sat looking out of his window on the last day of December upon the wide water front opening out

of the street upon which he lived, commanding one of the most picturesque of views. "Is there a city in the world as beautiful as Stockholm?" he said. "Is there anywhere a palace more majestic, or cathedral towers more stately than ours? Here we are sheltered from the high winds and the air is pure and healthy, and there is nowhere more lovely rolling land or more picturesque water curves. I like in summer to see the gay Dalicarian women mooring their cheerful ferry-boats near the beautiful granite bridges—but the ice-covered waters are to me charming even in winter. My ships, when I like, can go into the very heart of the city. I am a fortunate man to-day; one of the most fortunate in all Stockholm. And my daughter Axel is so lovely—how she sings! how she plays! how she dances! and her eyes are like my mother's. She must marry a very rich man some day, and she will have two fortunes. No poor man can have my daughter's hand; she is worthy of a prince. But I have not heard her sing for days. She is drooping, she looks pale, she is not at all herself. She cares not for all the new diamonds I get for her."

The merchant sat looking over his papers for two hours. Meantime the sky outside was covered with black clouds. It rained; it grew dark. There was a knock, and a tall, noble-looking young man came in.

He bowed very low. His manner was so attractive, so frank, so noble, you could not help admiring him. His hair was brown and waving, his eyes blue and clear. He was born in Stockholm and so were his father and mother before him. He was a Swede, and a noble type of manly beauty and grace. His name was Carl Lundquist.

"I can not bear this suspense any longer," said Carl, "I have loved Axel for years and she has loved me. I have come to ask you for her hand."

"No," said the merchant, "it is best for you to give that all up; but we can

still be friends, as good friends as ever."

"Sir," said the young man, "your refusal will seal the life-long misery of two persons."

"In God's name be reasonable, my dear sir. My daughter has a beautiful home and every earthly blessing. She has nothing wanting to make her happy. What have you to give her? What have you to take care of a wife with? You have your bright prospects and your ardent hopes; but what are hopes and prospects to live on?"

"But, the future, dear sir, has something certainly in store for him who does not wait for it with folded hands."

"The future, yes; your splendid picture would become a dear present time for my money."

"This then, is your final answer?"

"Yes, I am too old a merchant to conclude such a bargain."

"But you, sir, sometimes equip one—yes, several ships without being sure that the speculation will pay."

"Yes, but if all go to the bottom, ships and cargo, it is all insured; but if I should take out a life insurance on you, it would not save you from poverty or me from assuming burdens; and your salary might do for a poor man's daughter—but never for mine. Only a rich man can have my Axel."

"Is there no hope—no possibility?"

"It is just as impossible for me to give you my daughter, as for you to bring me a bunch of hepaticas for a New Year's gift. When you bring me the hepaticas for New Year's, you may expect to have the fairest flower in all Sweden."

The young man rushed out of the door; the greatest hope of his life was dying in his heart. In the hall he met the lovely maiden who looked as if she were too pale and sad for earth, as if she had long known the hopelessness of their love.

"Oh, Axel," said Carl, "your father bids me give you up forever—and this life for me has nothing more to give.

There is a world where nothing can come between us." He passed out of the

door ; he saw not the poor girl's tears, heard not her despairing cry, but on he went, out into the dark night. It was gloomy without and his soul was shrouded in gloom. Not caring whither he went he hurried on and over the north bridge. If the bazaar had had as many eyes as it had shining windows, it might have shed tears over the unhappy youth, who rushed by the patrol on Gustaf Adolf's square wishing their bright bayonets were encased in his aching heart. He rushed against an officer on his way to his New Year's supper, knocked the papers out of an old news woman's hand and his head against a brewer's horse without noticing whither he went. Before he knew it he was inside the gates of Haga Park and rushing along the shore of Brunn's bay. He heard not the winds and waves. He looked hopelessly down into the deep, dark sea where stormy waves had risen so high above the breakers. Had he not believed in a Divine, Almighty Father he might have thrown himself into those dark waters. How the surging waves of sorrow rolled and moaned through his soul. If he could only be borne on somewhere, anywhere away from himself to some world more just than this, where a want of gold will not crush all hope !

But he stops a moment as the clouds above him open a little, and he sees just a little blue. He has lost something—it is only an overshoe, but he stops to find it. While looking his best and feeling for it in the sand, clay and water beneath him, the New Year's eve sends its lantern—the moon to his aid—just for a moment. He feels around the trunk of a great oak, and he grasps—not the lost shoe, but, ye beautiful, tender powers, that have spun your gold into strings for the poet's lyre, and have given so many times wings to hopeless love ; you have shown your pity this time this cold, dark New Year's night for this poor, hopeless lover. You have left in the dark and cold, under the old oak tree, clinging fast to its lonely wintry shelter, a bunch

—one little bunch of hepaticas ! And Carl there finds it !

He thinks no more of the dark waters, or his lost shoe, but he grasps the flowers and hugs the treasure impetuously to his heart. "She shall have the flowers" he says. "They have bloomed for me in winter. It is possible for me to give them to the merchant, for a New Year's gift, and I shall have his own fair flower—his lovely child for my own."

The flowers had lain long by the side of the oak wondering at their early coming, and dreaming of spring time in the bosom of mid-winter. Now he presses them to his lips. "So," he said, "in the winter of my heart spring shall bloom." As he knelt down in the slush and gathered the flowers, every drop of water that splashed upon his clothes seemed like a rising star in the night of his heart.

The maiden had long and tenderly loved him. "He is gone," she said, "gone forever—he may never come back—out in the storm—he may throw himself into the dark waters. Oh, take me to him," she cried, as she lay tossing and moaning on her bed in her beautiful home. Her father and mother stood by her bedside, watching her face, pale as death. "Carl has told me," she said, "one can sleep so quietly in the grave."

"See what you have done," said the father to his grief-stricken wife. "You could have quelled this unfortunate passion in the bud. This is a beautiful New Year's eve," he muttered to himself. "It only lacks now for that fool to go and take his own life. It is your fault ; you are her mother, you could have kept her away from him."

"It is your harshness," replied his wife, "that has murdered our only child. What is all your wealth, your houses and lands, your ships and cargoes, your long hoarded gold to compare with the life of our only child, that now, through your inhumanity, we must lose. Carl has youth, health and nobility of soul, and you have gold enough for both. Her heart is linked to his and you would

break the chains that love has linked." At these truthful words for the first time in his life, the father felt there was something dearer to lose than ships and cargoes, and that no insurance office could restore joy to a father's crushed heart. As he leaned over his child's bed his tears flowed fast, the first tears he had shed for years.

But there was a noise on the stairway ; it was near midnight, the clock was solemnly ticking away the year's last hours. The pale maiden exhausted were lying quietly, and looking as if life was ebbing away fast. The door opens, and the young Carl enters. His face is pale. His clothes are spattered with the storm, and much soiled from kneeling under the oak tree in Haga Park. In his hands he holds the hepaticas—he dashes them in the merchant's face, with the cry, "You have said it, it is impossible for you to

give me your daughter, as for me to give you hepaticas for a New Year's gift. See, here is the one possibility—give me now the other." He threw himself, wet as he was, on the bed. He drew the insensible girl to his heart. The cold spray from his garments and his tender caresses aroused her. The merchant stood still looking at his hepaticas, and felt that a weight had been lifted from his heart.

"Thanks for the hepaticas," he said, "though they have cost me very dear. Who would believe that the myrtle would grow under the stalk of a hepatica.

Somewhere in the dark and in the storm, this New Year, the flowers of hope may be hiding for all of us.

In Stockholm, in a certain window in a vase, when they can be had, may always be seen a bunch of hepaticas.

LYDIA M. MILLARD.

ANOTHER MARTHA: OR LOST OPPORTUNITY.

SO much engrossed with household cares as to be oblivious to other duties, the Babouscka of the old Russian legend was only another Martha after all. When the three wise men from the East, so the story goes, were on their way to worship the infant Jesus, born in a manger in Bethlehem of Judea, they passed the house of the Babouscka, and in passing, called out to her :

"Come with us, for we have seen his star in the East, and go to worship him."

"Yes," she said, "I will come, but not now. I must put my house in order first. I must sweep, and dust, and bake, and brew, and when all this is done, I will follow and find him."

But before her self-allotted task was accomplished the three wise men were far on their way, and the star which was guiding them, shone no longer within her horizon's view. Full of contrition that she had not obeyed at once, and left undone work which, now that it

was accomplished, seemed unsatisfactory and of little worth, compared with the honor which might have been hers, she sets out alone and in haste, in search of the Christ-child. Deathless as the Wandering Jew she still lives and searches everywhere for her lost opportunity. Little children are thus her special care, and in every cradle over which she hovers, she hopes to discover the One for whom her soul longs.

Certain artists have given range to fancy in sketching the Babouscka in these journeyings. Sometimes they represented her wearily hobbling along through snow and sleet ; sometimes gazing at a star ; oftener peering into the face of a sleeping child, her sad expectancy doomed to disappointment. Among the Italians as well as the Russians, the children are taught that it is the Babouscka who fills their stockings and decks their Christmas trees. Sometimes they rush out early on Christmas morning eagerly shouting "Behold the Babou-

scka!" but she has vanished, no one knows whither.

In this fanciful story of the Babouscka, can not those of us who are "cumbered about much serving" learn a little lesson? for the Babouscka is not the only one whom unavailing regret follows through life. Is it not just possible that time is frittered away in needless cares—in doing little things which might better be left undone, because in doing them, greater opportunities for service are allowed to pass by unheeded, lost as utterly as the Babouscka lost her opportunity of accompanying the three kings. She might have become their fellow pilgrim, and though possibly unable to carry the rich offerings of their princely rank, yet quick obedience and willing homage might have been just as acceptable tribute. She appears to have been willing enough to go, but the cause of her failure lay in determining to choose her own time and her own way.

Such inclinations are natural, and when yielded to not infrequently result as in this instance. Some of us, however, may be able to learn obedience in no other way than by suffering the penalties of transgression. Each hour brings its own pressing duties and peculiar opportunities; but the wheel of time rolls forward with resistless force, and by no power is its motion ever reversed or stayed that we may recover what our procrastination loses to us.

Far should it be from us to undervalue the service of little things; for in their faithful performance, our Lord is as much glorified as by great deeds. In truth, it requires more nobility of soul to wear out life and strength in doing little homely tasks in an obscure corner, than in performance of duties which the world can look upon and applaud. But, the hundred needless tasks which we set ourselves about, from false pride, from selfish considerations, or because Madam Grundy will think it strange if we do not do them; the cares and worries, which have their root in unbelief:—these are

things which may stand between us and a close following of our Lord.

Miss Havergal, whose fervent and devout songs carry a blessing wherever they go, would quiet faithless questioning and unbecoming complaints with

Hush! oh hush! for the Father knows
what thou knowest not;

The need, and the thorn and the shadow
linked with the fairest lot;

Knows the wise exemption from many an
unseen snare;

Knows what will keep the nearest, knows
what thou couldst not bear.

Hush! oh hush! for the Father portioneth
as he will;

To *all* his beloved children, and shall not
they be still?

Is not his will the wisest, is not his choice
the best?

And in perfect acquiescence, is there not per-
fect rest?

Hush! oh hush! for the Father whose ways
are true and just,

Knoweth, and careth, and loveth, and
waits for thy perfect trust;

And the cup he is slowly filling, will soon be
full to the brim;

And Infinite compensation forever be found
in him.

Hush! oh hush! for thee the Father hath
fullness of joy in store;

Treasures of power, and wisdom, and pleas-
ures forever more;

Blessing, and honor, and glory, endless,
infinite bliss;

Child of his love and his choice, oh, canst
thou not wait for this?

H. L. MANNING.

A lazy girl, who liked to live in comfort and do nothing, asked her fairy god-mother to give her a good genius to do everything for her. On the instant the fairy called ten dwarfs, who washed and dressed the little girl, and combed her hair and fed her, and so on. All was done so nicely that she was happy, except for the thought that they would go away. "To prevent that," said the grandmother, "I will place them permanently in your ten fingers." And they are there yet.

WHAT IS LOVE?

WHAT is Love, my Harold, tell me truly now
All the word containeth, all thou canst avow
Thou wouldst give another when the trusting heart
Folds a like within it, ne'er from it would part?

Ah, my sweet one, well thou knowest
Life is varied; what thou sowest,
Its harvest sure of grain or tares
Of joy or grief abundant bears.
But trusting heart, fear not, we'll cling together,
In days that golden gleam, and cloudy weather.

Charming words, my Harold, deep in meaning they;
But again thy answer in a simpler way
I would ask entreating—what is Love sincere?
Pose me no enigmas, no abstractions queer.

Ah, my sweet one, Love is mighty,
Never line or plummet rightly
May its height or breadth determine;
Royal state befits the ermine,
But jewels bright, and vesture of the rarest,
No beauty lend to Love, our treasure fairest.

Still I beg thee, Harold, other terms to use,
Deep conceits scholastic much my mind confuse;
Tell me Love is artless, meet to ev'ry need;
Prince, and peasant feeble, may upon it feed?

Yes, my sweet one, in thy vision
Gleams her pure and holy mission;
To high and low dispensing cheer,
From timid souls dispelling fear.

Insidious Vice, in that pure light serene
May not conceal its tinsel robes unclean.

Sayest thou, my Harold, Love's a glowing fire
That the heart refineth—fills with chaste desire;
In the heart, its temple, gentle rule extends,
Ev'ry loyal subject mightily defends?

Yes, my sweet one, rich thy gleanings,
Thou hast caught the deeper meaning
Of that all-subduing flame,
Call we by Love's sacred name.
Sparkling radiant, beauteous with eternal truth,
In the eye revealing dewy, tender ruth.

Love is then, my Harold, mercy, truth, and light,
Eden's savor sweetest, rose's pearly white;
Blest the heart that knows it; blessings fall around
Where its soul-communion e'er on earth is found.

Ah, my sweet one, Love the precious
Gift of Heav'n, divine afflatus,
Reigns within thee—patient, tender,
Sorrow's friend, and faith's defender;
Bold, alert, responsive ever, prompt at duty's call,
Love fulfilleth human being—Love, my sweet, is all.

H. S. D.

CARDINAL McCLOSKEY.

THE death of Cardinal McCloskey was an event of special importance in American religious history. Not that he was the first Cardinal that had been appointed for America, and therefore a very eminent member of his denomination, do we take occasion to award him respect in this place, for the central authority at Rome can easily designate his successor, but because John McCloskey possessed sterling qualities as a man, and had won place in his Church by earnestness of will and persevering industry. As a boy he was of feeble constitution, and as a man in mature life he was not vigorously healthy, yet he labored on year after year, and worth and sincerity gave him preferment. He was born in Brooklyn, N. Y., in 1810, at a time when Long Island did not possess a single edifice of the Roman Catholic type, and New York had but one. At sixteen years of age he decided to enter the priesthood, and

studied for that object in the Seminary at Emmitsburg. In 1834 he was invested with the functions of a priest, and when but thirty was appointed pastor of St. Joseph's Church, New York. From that time duties and honors ecclesiastical thickened upon him; in 1847 being made bishop, and in 1864 receiving the pallium of archbishop from the Roman Pontiff, Pius IX. Eleven years later he was created Cardinal Priest, and formed one of the College that elected the present Pope.

In manner he was polished, and kind, as became a gentleman of high culture and a generous nature. He was also one of the most finished orators in his denomination. Charitable in a high degree, his name will remain chiefly for his sincere endeavors to alleviate suffering and to elevate the moral and social qualities of the people over whom he exercised his priestly offices.



DRESS REFORM—ITS RISE AND PROGRESS.

IT is only about a decade since a paper read before the New England Woman's Club, by Miss E. Stewart Phelps, on "Woman's Dress," so stirred the heads of those who heard it, that it resulted in the appointment of a committee to deliberate upon the subject, and to report at some indefinite future time as to what action could be taken by the Club toward rendering women's dress more healthful, artistic, simple and serviceable. The committee was composed of physicians, artists, and those specially interested in the subject. Mrs. Abba G. Woolson was chosen Chair-woman.

At the first meeting the subject was fully discussed, and while forced to admit that reform was needed in the external dress, it was decided not to begin their work here, but on the structure and arrangement of the inner clothing as really the most important and one that would essentially affect the outer dress.

That the prevailing mode of corsets and bands, with the weights suspended from the hips was injurious to health, and the chief cause of those diseases peculiar to women from which resulted others such as heart disease, lung and liver complaints, headache and spinal affection, was a fact apparent to all. All of their energies were therefore directed to the originating of under garments which should be healthful, comfortable and

tasteful. To say that their ingenuity was taxed to the utmost in this matter would be the truth. It is much easier to criticise than to improve; to tear down than to build up. Many were the experiments and numerous the failures before the hygienic garments were pronounced satisfactory. But the Reform movement was by no means at a standstill, while the work of devising and experimenting was going on. The committee wrote letters to other Clubs, seeking to awaken a general interest in Dress Reform. The Sorosis Club, of New York, appointed a special committee of their ablest members to co-operate with the Woman's Club, and as the Congress of Women, held not long after in New York, in the inauguration of which Sorosis took a leading part, the question of Woman's Dress was considered as of paramount importance. From other States there came also responses of approval and co-operation. At an early stage of this reform movement, a course of lectures was given by physicians in different localities. These were largely attended, and numerous requests called for their repetition in other cities and towns. The reports of the committee written by Mrs. Abba E. Woolson were published, and thousands scattered broadcast over the land, thus sowing the seed which has brought forth at least sixty-fold if not a hundred. The

good work also reached the schools. The Dress Committee of Sorosis accomplished much in this direction. It took the form of lectures to the older pupils on all those physiological points pertaining to the health of women.

EXHIBITION OF HYGIENIC GARMENTS.

The efforts of the committee had at last resulted in the construction of undergarments which they deemed worthy of the good opinion of the general public. May 11, 1874, the garments were placed on exhibition at their Club-room. The second exhibition on Friday, May 29, at Freeman Place Chapel, was public and free to all.

Mrs. Woolson, in her graphic report says: "All eyes were intent on scanning the strange innovations upon that established style of female underwear, which this generation had accepted from their mothers and grandmothers as the legacy of Fate, asking no question as to its utility, nor dreaming of anything else as possible. The garments utterly condemned from the first were the corset and the chemise. These were abandoned. Objection was made to the style of drawers commonly worn, because of the band round the waist.

The substitute for the three named garments was the chemiloon or shimmerlooon which was the simultaneous invention of two members of the Club. "When two ladies of the Committee appeared on one of our exhibition afternoons," says Mrs Woolson, "and with an air of serene triumph, unrolled a new garment over which they had labored for many days, imagining, shaping and improving it, but saying never a word of their work until it was revealed to us in its perfection, we stared, gazed into each other's eyes and exclaimed, 'It is the shimmerlooon!' 'Behold what I have made,' said one; 'I have evolved it out of my inner consciousness and it proves to be the embodiment of our dreams.' 'Christen it,' said another. 'I have brought its name with it, was the reply,

and she gave us an appropriate and musical word which none of us can now recall. Its faultless Italian perished as soon as uttered. But the name that had been floating about vaguely in space, waiting for an object upon which it could fasten, seized and appropriated the new invention at a glance. No one spoke of it by a different title, no one remembered any other; it was and ever will be the chemiloon. Such is the history of the word as far as known to us. But it is not altogether friendless; the Committee have learned to like it, and it ever has its ardent admirers."

You shall hear what a distinguished clergyman and lecturer—who has just brought home from Edinburgh a package of flannel chemiloons in obedience to directions from his dress-reforming wife—writes concerning this absurd appellation.

"I rejoice that the good cause has been going on from glory to glory; and I sincerely congratulate you on the last achievement which has enriched the English language with a new and exquisite word. How much literature will owe to the struggle for emancipation from corsets and tyranny! While I, in my prosaic way was bringing the thing across the sea, you were idealizing it and wedding it to sweet sounds and syllables forever. Poet, lover, philosopher—all will weave into dream, vow and history this word. In future years the sighing serenade shall sing:

'Wake, dearest, wake! Love lifts to thee
its tune;

The earth is listening 'neath the shimmering
moon;

Arise, and don the snowy shimmerlooon!'

Thus shall the ballad-maker write:

'Oh, Maggie was a bonnie lass,
Too fair to die so soon;
Soft was her step upon the grass,
And white her shimmerlooon."

All vainly may young Edwin pine,
In vain implore love's boon,
No more he'll see on Monday's line
Her vestal shimmerlooon.'

"Yes, Swinburne will leap for joy when he hears this word. Joaquin Miller will tell us of his shimmerloonless beauties; and I—ah, that I were another Hood; then the song of the shimmerloon should be my masterpiece!

"If the word persists in living, if a poet can thus rhapsodize over it, and commend it to our masters of melody; surely we will have to tolerate its existence. In time it may fall pleasantly upon the ears of women, for it will prove itself the fore-ordained title of the most comfortable, light and simple article in their whole attire. It seems a little strange that after so much enthusiasm over the name it should have been changed to one not so appropriate."

When the change took place we do not know; very probably it was when the present beautiful garment took its place. Not that the modern chemilette is very unlike the shimmerloon; it is, so far as we can judge by comparing the illustrations of the earlier with the modern, simply a more artistic and pleasing form evolved from the first. It is a combination suit; the waist and drawers united in one garment, thus avoiding the over-lapping and the cord at the waist. Made from measure like a dress lining, they fit the bust perfectly. The waist is made double and exquisitely finished. There are buttons on the inside for the stocking suspender, and buttons on the outside for the attachment of the skirts. Some are elaborately tucked, and trimmed with Hamburg.

The Union flannel underwear was at first imported from Glasgow, Scotland, and was conceded to be perfection itself. There were woven in one piece, vest and drawers, without any separation at the waist. Probably these suggested the initial shimmerloon.

Being interested in the history of Reform garments, and of the "Bates Waist" we wrote to Miss. C. Bates, Boston, asking information. From her we learned that after the rooms opened for the sale of the sanitary garments passed

into other hands, the sales greatly declined. Under the hammer three years ago Miss Bates bought the business and added it to her own thriving establishment. She made a speciality of the ribbed Union under-flannels, which were three-seamed at the waist. She invested in the outset \$600 in the fabric. Each year the demand increased, so that this year she was compelled to purchase knitting machines and manufacture from the yarn. She says: "I believe that I am the only woman in these parts of the United States who owns machines and manufactures from the raw material." She sent us a sample of her first work on the machine, and it is well-nigh perfect. The garment is knit, ribbed and entire from neck to ankle, instead of being cut and seamed at the waist, as formerly when the fabric was imported. There is just as little seaming as possible: what was needful to shape the garments only. Being ribbed they fit the form closely, but being very elastic there is no undue compression. With the woolen shimmerloon and the cotton chemilette, one is comfortably, uniformly, warmly, healthfully clad; no stiff corsets and tight bands compressing the bust and waist; no heavy skirts dragging on the hips; no vest with its superfluity of material around the bust; no ill-fitting chemise, but instead closely fitting garments, which afford perfect ease of motion and deep respiration, while they are tasteful.

The inventor of the Bates waist says "that one after another of her patrons began to ask for a waist and this led her to experiment and resulted in the beautiful waist, which now bears her name. It has received the highest prize from lady physicians and others who have worn it." We can bear personal testimony to its value.

After wearing the Reform garments several weeks, having some dirty work to do, the former rig was donned: skirt supporting corset, etc., but in an hour followed such a backache and sideache,

inability to take a deep, long breath, and a most hearty regret for the folly most deep ; then realization of the pernicious effect of such a dress, and most sincerely we vowed never again under any circumstances to wear a corset though a "Reformer," even for an hour. Would that our experience of the Sanitary garments covered a period of years instead of only a few months. I now have Dress Reform on my brain, on my body, on my

head, and I purpose it shall go into my pen and into the press to the utmost of my ability, seeking to persuade my sex to banish the corset and adopt these healthy garments. Mothers put them upon your daughters before they suffer as thousands have suffered and are now suffering from the effects of whalebone, steel, cords and weights suspended from the hips.

M. D. W.

DESIGN IN DISEASE.

IF modern Pathology has illuminated any truth it is this, that disease is not an accident in human lives. In the origin control and purpose of morbid phenomena there are as definite principles to be traced as in the observations and perturbations of the heavenly bodies. Physicians as well as astronomers find an intelligent cause in processes which only the ignorant or atheistic regard casual. We may hesitate to say with Dr. James F. Duncan, a physician in Dublin, that "God is the author of disease," but can not deny, at least, his permissive and controlling agency in the casualties and sicknesses of men. Is there evil in the city and the Lord hath not done it? Did he not permit Satan to afflict Job and to bind a daughter of Abraham with infirmity, while others have been possessed with demons until cast out by Divine power? It is said that the Lord sent on Israel the pestilence which consumed seventy thousand ; that the Lord sent emrods on the Philistines, a plague on the census gatherers, leprosy upon Azariah, and the Lord struck the child with sickness, that Uriah's wife bore to David. Sickness and affliction do not spring from the dust. There are no accidents with God. Events are not purposeless and actions fortuitous. There are laws everywhere. Violations of law cause disturbance and suffering. We may expect such infractions oftener in a system of moral government than elsewhere. A planet has no choice—man has. Appetite and

inclination govern, and hence collisions with law and consequent suffering—physical and mental.

Just here the exigencies of human condition are an opportunity for God's wisdom and love. Out of seeming ill he is ever educing good. Pain may become a beneficent agent and sickness a helpful teacher. The author just quoted shows how individual character and the temper of society itself is moulded by this wholesome corrective ; how this admirable counterpoise to the preponderating pressure of worldly affairs helps to restore one's mind to a proper balance, particularly in protracted or comparatively painless illness and in the weeks of convalescence ; how there springs up not only sobriety of mind in the contemplation of earth's mutabilities and Heaven's abiding verities in the mind of the sufferer, but sweet charities and graceful amenities among men, who thus learn that if one suffers all suffer, bound in one web of social life ; how that pain itself in the invasion and progress of disease has a wise and merciful function to perform.

But for the timely warning of pain the fact and location of injuries would be unknown to the individual. Dislocations or fractures might occur or fatal inflammations extend to vital parts unnoticed. The groan of a nerve, rheumatism or its shriek, neuralgia, is a call to halt. Pain pierces the breast, or heart, or side, and so restrains activity which under the cir-

cumstances is périlous. It is a cry of danger. We are not to smother it, but remove the cause. The surgeon or physician is guided in his diagnosis by this sign and symptom, visible to his eye by its voluntary and involuntary manifestations, as well as witnessed to by the patient's testimony. When living tissues die, as in gangrene, the sufferer's freedom from pain may be delightful to himself, but it is ominous to the surgeon. Death impends. Again we see evidences of design in the kind of pain, its periods of intensity, its location or its migratory nature, its merciful cessation in ordinary insanity where patients are apparently happy. The early pain of an abscess is acute and throbbing ; its later pain duller. The pains of parturition are wisely graduated and timed by nature so as to discourage premature efforts of the mother at a périlous juncture and encourage maternal effort at the right moment. Nausea too, is another wise provision which shows design in the control which nature has over nascent disease. It is a barrier against further assault on the stomach. Food at such an hour would be a foreign body and rejected as any other intruder. Emesis, flux and syncope are other morbid phenomena which illustrate the instant provision made by nature for emergencies which would be fatal but for these forms of spontaneous and involuntary relief. Decubitus lessens the heart's action in case of hemorrhage and the contraction of the elastic arteries is another safeguard. Or contrast the processes of inflammation in a mucous membrane which is very vascular and in a serous membrane, which has a single lamina destitute of blood vessels ; a thin, smooth shut sac. If the serous is inflamed the lymph poured out causes adhesions, but if the mucous is inflamed suppuration results. Were these two processes interchanged every attack of cold might result in suffocation or irritation of the intestine end in starvation, as the canal might be hardened into a cord.

Dr. Duncan also refers to the elimina-

tion of purulent matter. Secreted on free surfaces it is easily carried off, but in deep tissues it might always cause diffuse inflammation and general blood-poisoning, were it not for the interstitial absorption by which the contents of the abscess are carried to the surface and discharged ; or, possibly inward, and emptied into the alimentary canal. Another curious way in which destructive processes are limited is by hypertrophy and adhesions of the walls of certain organs, and by the obliteration of arterial channels that otherwise would cause bleeding from injured surfaces. Collateral circulation does the work of disused larger vessels. The liver acts as a safety valve at times and saves the heart from a fatal strain in pulmonary congestion. It is very spongy. It is also located in the abdomen where it can expand. But the liver is sometimes incapacitated, permanently contracted, as in the drunkard's hob-nail liver. Then the spleen is called upon to do extra work and becomes permanently enlarged.

The diminution of the heart and of blood in consumption, induced by exhausting sweats and expectorations, illustrates the economy of nature or design in disease. The reduction of blood is adapted to a reduction of respiratory capacity. The history of eruptive fevers shows how disease is often self-limited, and how nature and nursing are sometimes all that are required to restore health. Cicatrization is but one of the interesting processes of reparation in surgical cases which illustrate the fact of intelligent design. To make up the loss of substance a new activity is set up in neighboring tissues. A replacement is secured by granulations, the result of a proliferation of new cells. So with a fractured bone. There is an internal deposit and an external ring of osseous matter. These continue till strength and stability are restored and then are gradually re-absorbed.

Dr. D. in his essay draws a final

parallel between God's methods and the physician's. A medical man, first of all, is supposed to understand the history of the case and the best way to treat it. He does not take the patient into consultation, but conceals much from him. His prescriptions are written in a dead language with technical symbols that have the air of mystery. He may give bitter, nauseating drugs. He may need to probe or amputate, introduce a seton or issue like a torturing thorn in the flesh, and do many other things to save life, which would not be humane under other circumstances. So our Heavenly Physician has mysterious methods, hard

to understand, by which he afflicts, though not willingly, the children of men. He does not always give a reason for what he does. We might not be able to understand it if he did, but what we know not now we may know hereafter. We have seen that each cloud is lined with light and that the evidences of Almighty wisdom and goodness are clearly written in our bodies so that in their normal and abnormal conditions we may see the hand which is

"Too wise to err, too good to be unkind." *

*From a paper read by E. P. Thwing, Ph.D., at the summer meeting of the Academy of Anthropology.

HOW THEY SALTED THE PUDDING.

"What shall we have for dinner to-day?"
Said Mrs. Dobbs, in her pleasant way;
"For Sally has much to do, and would wish
That we'll go along with an easy dish—
Something that wouldn't take long to pre-
pare

Or really require much extra care."
Said Mrs. Dobbs: "There isn't a doubt
But that we'd all fancy a stirabout!"

"A hasty pudding! Hurrah! That's nice!"
Exclaimed the girls and boys in a trice.
Then Sally put on her biggest pot,
And soon the water was boiling hot,
And Mrs. Dobbs mixed together the flour
And water, and in less than half an hour
The pudding commenced to bubble up thick
And dance about with the pudding-stick.
Said Mr. Dobbs, as he made a halt:
"Our Sally is apt to forget the salt;
So I'll put in a pinch ere I leave the house"
And he went on tip-toe as still as a mouse,
And dropping a big pinch in very quick,
Stirred it well about with the pudding-stick,
And said to himself: "Now isn't that
clever?"

At which the pudding-stick laughed louder
than ever.

Then Mrs. Dobbs came after a while,
And looked in the pot with a cheery smile,
And thought how much she'd enjoy the treat,
And how much the children would want to
eat;

Then said: "Our Sally has one great fault—
She is very apt to forget the salt!"
And into the hasty pudding was sent
Another pinch of the ingredient.

John, George, and Jennie, and Bess, in
turn;
Gave the stick a twist, lest the pudding burn,
For oh! how empty and wretched they'd
feel

If anything ruined their noonday meal!
And each in turn began to reflect,
And make amends for Sally's neglect;
For the girl was good, but she had one
fault—

She was very apt to forget the salt!

But Sally herself, it is strange to say,
Was not remiss on this very day;
But before she went to her up-stairs work
She threw in a handful of salt with a jerk,
And stirred the pudding, and stirred the
fire,
Which made the bubbles leap higher and
higher,
And as soon as the clock struck twelve she
took
The great big pot off the great big hook.

It wasn't scorched! Ah! that was nice!
And one little dish would not suffice
Mr. or Mrs. Dobbs, I guess,
John, or George, or Jennie, or Bess;
And as for Sally, I couldn't say

How much of the pudding she'd stow away;
For she was tired and hungry, no doubt,
And very fond of this stirabout.

A happier group you'd ne'er be able
To find than sat at Squire Dobbs' table,
With plates and spoons, and a hungry wish
To eat their fill of the famous dish.
But as soon as Dobbs began to taste
The pudding, he dropped his spoon in haste;
And all of the children did likewise,

As big as saucers their staring eyes.
Said Mrs. Dobbs, in a voice not sweet :
" Why it isn't fit for the pigs to eat ! "

And I doubt if an artist would e'er be able
To depict their looks as they left the table.
Said Sally: " I thought it would be so nice !
But I must have salted that pudding twice ! "
And none of the family hinted that they
Had a hand in spoiling the pudding that day.

—*Independent.*

NORMAL STANDARD OF PHYSIOLOGY.

IT is admitted that Professor Huxley is the highest living authority on matters pertaining to physiology. The following table, prepared by Professor Huxley, defines the constituent elements that compose a perfect human body. It describes exactly not only all of its principal parts, but what supplies it must have, from day to day, to preserve it in a healthy state.

This table reads as follows: " A full-grown man should weigh 154 pounds, made up thus: muscles and their appurtenances, 98 pounds; skeleton, 24 pounds; skin, 10 1-2 pounds; fat, 28 pounds; brain, 3 pounds; thoracic viscera, 3 1-2 pounds; abdominal viscera, 11 pounds; blood which would drain the body, 7 pounds. This man ought to consume per diem, lean beefsteak, 5,000 grains; bread, 6,000 grains; milk, 7,000 grains; potatoes, 3,000 grains; butter, 600 grains; and water, 22,900 grains. His heart should beat 75 times a minute. and he should breathe 15 times a minute. In twenty-four hours he would vitiate 1,750 cubic feet of pure air to the extent of 1 per cent. ; a man therefore, of the weight mentioned ought to have 800 cubic feet of well ventilated space. He would throw off by the skin, 18 ounces of water, 400 grains of solid matter and 400 grains of carbonic acid every twenty-four, hours and his total loss during the twenty-four hours, would be six pounds of water, and a little above two pounds of other matter."

This description represents a harmony or balance of human organization, which we believe, has practically very important bearings. We have in this description set forth to a certain extent, both the anatomy and the physiology of the body—the structure in the fore part, and the function in the latter part. This organization may very properly be considered the *normal standard* of the human system—that it is represented here in its best estate. While we may not, perhaps, find perfect examples—like the organization here described—we find all manner of approximations toward it. Still the standard remains the same, and upon it are based, we believe, certain great physiological laws which are fundamental and vastly important. Some of these laws we propose to notice briefly in this article; but it would require volumes to do justice to them.

1. *The Law of Health.*—In analyzing this table we might almost scientifically figure out the exact changes which cause disease. There must be, in the very nature of things, one kind or type of organization more conducive to health than another. Admitting this fact, there must be an organization of the body far better adapted to secure perfect health than all others. What, then, must be its type or character? What must be its anatomy and its construction? Is not that the standard which consists in a perfect harmony in the performance of their respective functions? By referring

to the table it will be seen at once that a change in the weight or measure pertaining to any part of the body will make a radical change in the type or standard set before us. If you change any one of these factors, you destroy the harmony or balance in the whole organism. If the structure is changed, it impairs just so much of its functions. This constitutes the entering wedge of disease. The particular kind of character of the disease must depend upon what organ or part of the body is changed. By referring to the table we find certain directions given as to the support of the body. If there is a failure to carry out these directions, or if there is any material change in the character of the supplies, disease may not be at once produced, but the vital forces of the system may be lowered, or some weakness started. The first changes may be slight in their character, but lead to serious results. Some of the gravest diseases originate from the most trivial causes.

HISTORY OF THE POTATO.

To most of our readers it may be interesting to know something of the history of this most common of garden products. It was in 1585 that Queen Elizabeth granted a patent for discovering and planting new countries not possessed by Christians. Under this sanction several vessels, principally equipped by Sir Walter Raleigh, sailed with him to America. Thomas Harriott (afterwards known as a mathematician), who accompanied the adventurous squadron, transmitted to England the description of a plant called *Openawk* by the natives of that part of America which the courtier-like gallantry of Raleigh had named Virginia. Harriot described the openawk as having its roots round and hanging as if fixed on ropes, and good for food either boiled or roasted. Gerard, in his "Herbal," a few years subsequently, distinguished the plant by a plate and not only confirmed the assertion that it was an indigenous production of Virginia, whence he himself had obtained it, but supplied various curious details of its qualities and of the various modes in which it could be prepared for the table. He especially commended it as "the basis of delicate conserves and restorative sweetmeats," with the assurance that its flatulent effects may be infallibly corrected by having the root "eaten sopped in wine;" adding, "to give them the greater gre in eating, they should be boiled with prunes." The honor of first cultivating the potato in Ireland, where it has long constituted the principal food of the peasantry, has been attributed to the grandfather of Sir Robert Southwell (President of the Royal Society), toward the close of the seventeenth century. Sir Robert's statement was to the effect that his grandfather had obtained the roots from Sir Walter Raleigh. The well-known story of Sir Walter having planted the potato in his garden at Youghal, and of the disappointment of his gardener in autumn on tasting the apples of the "fine American fruit," and of his subsequent discovery of the tubers when he was told to throw out the useless weeds, is very probably authentic also. But the potato had been known in Spain and Portugal at an earlier period; and it is from the latter country that we must derive the name by which it is known to us. By the North American natives the plant was called openawk. Those of the south called it papas, which was corrupted by the Spaniards into bat-ta-ta. This the Portuguese softened into ba-ta-ta, to which our name potato is a very close approximation. The potato was long cultivated in Ireland before its introduction into Lancashire, which was said to be owing to a shipwreck at North Meols, at the mouth of the Ribble, whence the culture of this important plant gradually spread throughout all Great Britain.

For a century and a half after its introduction at Youghal it remained a garden plant, and the first cultivation of a field crop is said to have been in 1732, in Scotland.

JOINT-DISEASES IN CHILDREN.—We have alluded to the injury done to young children by nurses who carelessly draw them about in the conventional baby carriage. Now we have something from the *Lancet and Critic* on how joint-diseases are often caused by indiscreet treatment on the part of nurses or parents. The causes of joint-diseases in childhood are frequently obscure, but this much is certain, that the rough handling which children receive from ignorant parents or careless nurses has much to do with the matter. Stand on any street corner and notice how children are handled. Here comes a lady with a three-year old girl; she is walking twice as fast as she should, and the child is over-exerting itself to keep pace; every time the child lags the mother gives it a sudden and unexpected lurch which is enough to throw its shoulder out, to say nothing of bruising the delicate structures of the joints. A gutter is reached; instead of giving the little toddler time to get over in its own way or properly lifting it, the mother raises it from the ground by one hand, its whole weight depending from one upper extremity, and with a swing which twists the child's body as far around as the joints will permit, it is landed, after a course of four or five feet through the air, on the other side. Here is a girl twelve years old with a baby of a year in her arms. The babe sits on the girl's arm without support to its back. This would be a hard enough position to maintain were the girl standing still, but she is walking rapidly and the little one has to gather the entire strength of its muscular system to adapt itself to its changing base of support, to say nothing of adjusting its little body to sudden leaps and darts on the part of its wayward nurse. Sometimes during a sudden advance you will see the lower part

of the babe a foot in advance of its head and trunk which have to be brought up by a powerful and sudden action of the muscles of the trunk and neck. Probably not one child in one hundred is properly handled.

FAT MEN IN SPARTA.—Much fat is not a sign of health, but of tissue degeneracy. Big, portly men, of two hundred and odd pounds of bone and tissue are not men for endurance or for thorough work. The ancient Spartans understood this thing. They paid as much attention to the rearing of men as our best stock-breeders of to-day pay to the rearing of fine horses. They took charge of the firmness and looseness of mens' flesh, and regulated the degree of fatness to which it was lawful, in a free State, for any citizen to extend his body. Those who dared to grow too fat or too soft for military campaigning in the service of Sparta were soundly whipped, and if they would not, of their own accord, reduce their flesh, they were taken in hand by trainers, who, with spur and lash, and corresponding diet, soon brought them to the required standard. In one particular instance, that of Naucelis, the son of Polybus, the offender was brought before the Ephori, and a congregation of the chief men of Sparta, at which his unlawful fatness was publicly exposed in the market-place, and he was threatened with perpetual banishment if he did not bring his body within the regular Spartan compass, and give up his culpable mode of living, which was declared to be more worthy of an Ionian than a son of Lacedæmon.

COMMON HEADACHES.—In speaking of minor ailments connected with digestion, Dr. Brunton has said that headaches were usually dependent either upon the presence of decayed teeth or of some irregularity in the eyes, more especially in the difference of focal lengths between the two. As persons who were subject to headaches in their youth grow older, bilious headache was very apt to be replaced by giddiness, and this change came when people needed spectacles.

NOTES IN SCIENCE AND INDUSTRY.

A Bible Picture from Pompeii.

—An important painting has been found in Pompeii, and placed in the Naples Museum among the Pompeian frescoes. It represents the judgment of Solomon, and is the first picture on a sacred subject, the first fragment either of Judaism or Christianity, that has been discovered in the buried cities. The picture is seven and a-half feet long and nineteen inches in height, and is surrounded by a black line about an inch in width. The scene is laid upon a terrace in front of a house adorned with creeping plants and shaded with a white awning. On a dais (represented as being about four feet high) sits the king, holding a sceptre and robed in white. On each side of him sits a councillor and behind them six soldiers under arms. The king is represented as leaning over the front of the dais toward a woman in a green robe, who kneels before him with disheveled hair and outstretched hands. In the center of the court is a three-legged table, like a butcher's block, upon which lies an infant, who is held in a recumbent position, in spite of his struggles, by a woman wearing a turban. A soldier in armor, and wearing a helmet with a long red plume, holds the legs of the infant, and is about to cleave it in two with his falchion. A group of spectators completes the picture, which contains in all nineteen figures. The drawing is poor, but the colors are particularly bright, and the preservation is excellent. As a work of art it is below the average Pompeian standard, but it is full of spirit and drawn with great freedom. The bodies of the figures are dwarfed, and their heads (out of all proportion) large, which gives color to the assertion that it was intended for a caricature directed against the Jews and their religion. This may be so, but my own impression is that the artist was anxious to develop the facial expression, and to do this exaggerated the heads. There is nothing of the caricature about it in other respects—the agony of the kneeling mother, the attention of the listening king, and the triumph of the second woman who gloats over the division of the child—are all manifest, and to my mind, there is no attempt, intentionally, to bur-

lesque the incident; but this is a matter of opinion.

Hunting Water with a Baboon.

—If when upon a long hunt or journey the Kaffir be unable for a long time to find water, he sometimes avails himself of the instinct of one of those animals which he frequently keeps in a domesticated state—the baboon, or chacma. The baboon takes the lead of the party, being attached to a long rope, and allowed to run about as it likes. When it comes to a root of babiana it is held back until the precious vegetable can be taken entirely out of the ground, but in order to stimulate the animal to further exertions it is allowed to eat a root now and then. The search for water is conducted in a similar manner. The wretched baboon is intentionally kept without drink until it is half mad with thirst, and is then led by a cord as before mentioned. By what signs the animal is guided no one can even conjecture, but if water is in the neighborhood the baboon is sure to find it.

Petroleum as Fuel.—Petroleum refuse was first successfully utilized as fuel at Baku in the southern part of Russia. This refuse costs there about sixty sents per ton, and it is estimated that one ton of it equals a ton and a half of coal for making steam. In applying the oil it is pulverized by a jet of steam in a very simple way, and by this process the combustion is perfect. There is no smoke, no soot, no clinker, no residue whatever, and no waste. The flame is entirely under control, can be raised or lowered instantly, and as instantly extinguished. Long experience shows that it can be handled without any danger. On the Caspian large steamers fully laden with oil have burned this fuel for ten years without a single accident.

The Central Pacific Railroad Company has recently introduced crude petroleum into nearly all its steamers, including the Oakland ferry boats. The oil is obtained in the State, some of it at Ventura, and some from wells not long struck near Livermore, on the line of the Western Pacific branch. The method of application is practically identical with the Russian—namely, by a steam jet. The

nozzle is flattened so that the atomized oil is blown in a sheet of flame into the fire box and under the boiler tubes. The saving in cost over coal has been nearly forty per cent. It seems to have been proved by the successful tests that no region which possesses petroleum, or can obtain it economically, need be dependent on coal for fuel for manufacturing and transportation, and it is equally certain that eventually the refuse oil will be utilized for household fuel, as has already been done in some parts of Russia.

A Book in Stone. A literary monument of a singular character stands in the corridors encircling the court of the Pekin University, which adjoins the Confucian Temple. This is a series of 200 slabs of black marble, like upright gravestones, each twelve feet in height. On these are engraven the whole of the classics, *i.e.*, the thirteen books of Confucius. It appears that by some extraordinary accident, there was once an Emperor of China so depraved as to endeavor to destroy every existing copy of this source of Seric wisdom. There is no doubt his early years had been embittered by the study of these wearisome volumes and when on his accession to the throne, he was expected to propound their doctrine to all his officials and mandarins, his soul was filled with a wild desire to commit them, once for all, to the flames. Perhaps if he had succeeded he might have relieved his country from its mental bondage to the Example and Teacher of the ages. He failed, however, but in cases such another Herod should ever arise, it was decided that these words of wisdom should be preserved on imperishable marble, which, moreover, should forever insure the Chinese characters in which they are inscribed from any change. So, round a great court, known as the Hall of the Classics, are ranged these tall, solemn marble tablets—embodiments of the dead weight where the present is here hampered by the past; and once a year in this place, the Emperor is obliged to give that lecture, the very thought of which so distracted his ancestor.

The Preparation of Cork for Stoppers.—Cork is so important in many operations that a little knowledge of the best methods of working it is indispens-

able. It forms the best material for a holder for sand paper in rubbing down flat surfaces, and affords the simplest and most effectual means of closing bottles in many cases. Cork is easily cut by means of a thin, sharp knife, which should not have a smooth edge, however, but one set on a dry stone, moderately fine. After having been cut to nearly the right form, it is easily worked to the proper size and shape by means of files. Holes are easily made through cork by means of tin or brass tubes, which must be thin and well sharpened on the edge by means of a file. The sharp edge, being slightly oiled, is pressed against the cork and at the same time turned round, when it quickly cuts a smooth, straight hole through the material. When it is desired to make corks air tight and water tight, the best method is to allow them to remain for about five minutes beneath the surface of melted paraffine in a suitable vessel, the corks being held down either by a perforated lid, wire screen, or similar device. Corks thus prepared can be easily cut and bored, have a perfectly smooth exterior, may be introduced and removed from the neck of a flask with ease, and make a perfect seal.

An Arboreal Curiosity.—Considerable speculation is being indulged in by local scientists and persons of Chester, Ill., interested in arboriculture regarding the strange freak of a maple tree which is constantly absorbing and scattering water over the passers-by on the principal street of our city. The tree, of fine proportions with a trunk of about twelve inches in diameter, and a height to its topmost twigs of about twenty feet, stands on the edge of the sidewalk in front of the residence of Mr. William L. Cohen, and for the past two weeks, day and night, there has been constantly falling from its branches, water in sufficient quantity to keep the fence and pavement beneath quite wet, and the drops falling on the passers-by cause those unacquainted with the source from which they come, to think a light shower is passing over. A great many people have visited the place, but no reasonable theory has been advanced as to its cause.

On Cleansing Filters.—Dr. H. V. Hull remarks: Of all forms of domestic filter the glass decanter with a solid carbon

or silicated carbon block seems to answer most of the requirements of an efficient, uncomplicated filter for family use. It has also the great advantage that every part of it can be seen, so that it can be kept scrupulously clean. These filters go on working perfectly well for a long time, requiring scarcely any care beyond cleansing the surface of the block of carbon occasionally with a hard brush. Filters, however, like most things, will not go on working forever, and attention from time to time is necessary. Distinguished authority on this matter says: "All filters, after a time, become clogged up, and have, therefore, to be taken to pieces and thoroughly cleaned; or, if this can not be done, they may be purified by passing them through a strong solution of potassium permanganate, with the addition of a few drops of strong sulphuric acid, and afterward, two or three gallons of pure or distilled water, acidulated with hydrochloric acid. The charcoal in a filter may also be purified, to a certain extent, by exposing it for some time to the sun and air, or by heating it in an oven or furnace;" though it is always by far the better plan to replace the old charcoal with that which has been freshly burned. In case of a cistern which is built so as to allow all the water it receives to pass through a filtering medium, the material of which the filter is composed—usually pebbles, sand, and charcoal should be taken out, the pebble and sand well washed, and the charcoal replaced by some which is fresh. This should be done certainly as often as every two or three years, and the cistern ought to be built in such a manner that this may be done easily.

Phrenology in Every-day Life.

—Phrenology is indeed a deep yet beautiful science requiring years of both study and observation and a large development in the region of perception to make anyone a good character reader. We look with longing at its Professors and give it up as too deep for us. But any one of ordinary mind can learn the general principles so as to see readily the strong point of a character. Yesterday I stood for a few moments near a boy and at the first glance I saw Language large and Veneration small, and I judged him a brag and perhaps profane. Five minutes later fully proved the truth of my impression. A

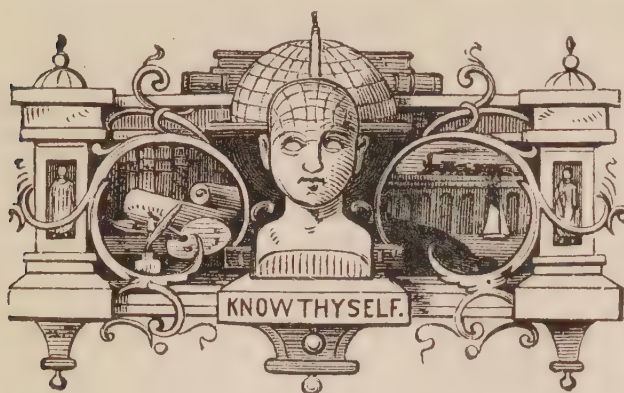
few days since I met a young lady whom I had not seen before for some years. The first look gave the thought, what a large character she has developed in a little time, the mind so much larger and stronger, the whole character nobler. In another instance I had business with a shoemaker whom I had never thought of only as Mr.—, and for the first time I noticed that he was a man worthy of a position of trust.

This is what I mean by Phrenology in every-day life. We find noblemen among our neighbors and friends, and we find narrow-minded and unprincipled men in high positions. We think we can judge ourselves aright, but this is not true, as I usually find one who lacks self-esteem, bewailing that he thinks so much of himself, and that he is so proud, and fearing, that some day his pride will get the better of him; when if he knew his own character he would know his pride and self-esteem were the very things he needed to cultivate. I have never yet heard a proud man regret that he thought so much of himself. So it is with children; the proud ones will cultivate their pride, but if they are lacking in pride and self-esteem, there is danger of their also losing their self-respect if some one does not understand and encourage them.

A. E. R.

A Good Cement—A good cement for mending almost anything may be made by mixing together litharge and glycerine to the consistency of thick cream or fresh putty. This cement is useful for mending stone jars or any coarse earthenware, stopping leaks in seams of tin pans or wash-boilers, cracks and holes in iron kettles, etc. Holes an inch in diameter in kettles can be filled and the same used for years in boiling water and feed. It may also be used to fasten on lamp tops, to tighten loose nuts, to secure loose bolts whose nuts are lost, to tighten loose joints of wood or iron, loose boxes in wagon hubs, and in a great many other ways. In all cases the articles mended should not be used until the cement is hardened, which will require from one day to a week, according to the quantity used.

Deodorizer.—The following is recommended as a good deodorizer for sick rooms and may serve also to some extent as an antiseptic: Oil of rosemary, 10 parts; oil of lavender, $2\frac{1}{2}$ parts; oil of thyme; $2\frac{1}{2}$ parts. Mix with water and nitric acid in proportion of 30 to $1\frac{1}{2}$. Shake the bottle before using, and saturate a sponge, which should be left till the liquid evaporates. The vapor which arises possesses wonderful deodorizing properties.



FOWLER & WELLS Co., *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
JANUARY, 1886.

OUR GREETING.

ON the threshold of another year, kind reader, we salute you, and give you our cordial wishes for your prosperity and happiness.

Time moves on—1885 is numbered with the past; its events have become the last page of the great volume of history; and they are unalterable. What there is among them to our credit should be cause for joy; what there is to our discredit should be cause for regret, perhaps penitence. But true penitence brings peace and refreshment to the soul; its discipline may be severe, yet in the end the honest soul finds cheer. Seneca declared, “*Quem poenitat peccasse, paene est innocuus*” (who repents of his sin is almost innocent.)

The movement of time resistlessly onward, with its succession of months and years, involves an admonition that speaks clearly enough to our understanding. It bids us look forward and not backward; it has hopes and promises

for zeal and industry; to the faithful it assures fulness of reward.

How few of us realize that our griefs, laments, repining and misery are almost entirely related to the past, and are kept active because we are so much disposed to look backward instead of forward. In the future there is encouragement for the weakest, if he will but rise to the level of his capacity. We cannot estimate the result of honest endeavor, but we can be sure that it will not fail of an outcome of advantage to the doer, while many may be helped indirectly. When a man throws himself into his work with his higher nature thoroughly alive, his sympathy, hope, faith, conscience, co-operating with his industry, perseverance and determination, failure is impossible. Circumstances may be apparently hostile to him in the beginning, but they somehow are converted to his favor. The hills that loom up in the horizon often appear to the traveller rugged and lofty, but as he plods steadily on he finds the road gently undulating with no abrupt or toilsome ascents until reaching the highest summit his surprised eye commands the plain over which he has passed. Thus apparent obstacles to the progress of the wayfarer in life's work sink away before diligent and cheerful industry, and results are reached that surprise the man of humble expectation.

The future contains everything the soul would have. Let us go forward determined to perform whatever of duty belongs to our relations in life, and with our eyes open to the sunshine and flowers that lie along the roadway. For such a spirit 1886 has in store much of gladness and no failures.

MORAL SUSCEPTIBILITY.

AN organ of the brain may be small constitutionally, but favoring circumstances will, nevertheless, awaken some degree of activity in it, and thus make it to exercise some influence upon character. This fact is particularly illustrated by the moral organs, as if it were an ordinance of the Creator that the moral faculties in man should possess a peculiar responsiveness to impressions that tend to awaken them. We may be a little over-zealous in opinion upon this point, as we have long entertained the thought that no one, not idiotic, could be so obtuse or perverted in the moral sense as to be entirely unaffected by influences that excite it, when wisely brought to bear upon him. A child may inherit a tendency to serious disease, a *diathesis*, in the language of medicine, or may inherit the disease itself in active form, yet in most cases judicious treatment will so modify the child's physical condition that he will in time attain relatively good health. Nature in such cases appears to be kind to her children, and although the sins of the father are visited upon the children, a wise treatment of the children will go far toward relieving them of the incubus of the suffering that, as a consequence of the father's sins would be entailed upon them, if the consequence were not understood and intelligently offset. So in reference to mental weaknesses; those which concern the moral faculties ap-

pear to possess susceptibility to benignant impressions.

The great master of human passion says: "There is no wretch so depraved but has a spark of conscience left which pleads like trumpet tongues the deep damnation of his sins," and we think the observations of all good judges of human nature confirm the principle thus uttered by Shakespeare.

It is reported by a charitable organization of New York, known as the "Bible and Fruit Mission," that of twelve hundred poor men to whom were given brooms to sell, with the understanding that they should return to the office of the Mission with the money, but one failed to return promptly, and he finally made his appearance and showed contrition for not being more prompt. These men generally belonged to the vicious and degraded classes, in whom people of practical business-like views are not inclined to place confidence; but the experiment of the mission showed conclusively, if there is any conclusion to be drawn from numbers, and the repeated occurrence of similar phenomena is a scientific basis for a definite conclusion—that the sense of obligation was excitable in the very persons who are considered specially lacking that quality.

Such a fact encourages us to be more hopeful of reform, and it should be very grateful to our philanthropic co-workers in the cause of social improvement.

AN ENCOURAGING OUTLOOK.

AT the close of 1885 it would seem as if the rapid succession of important events in Europe and America were

concentrating toward some grand climacteric that would convulse the entire world. The death of Alfonso, King of Spain, the

intense excitement in Great Britain concerning the Parliamentary elections, (whose grand result is vitally related to affairs in Ireland, Church disestablishment and the policy of the government in foreign relations), the war in the East where Serbia and Bulgaria, although meeting in deadly conflict are but as puppets that play off the fierce animosities of Russia, Austria and Turkey; in this country the sudden death of Vice-President Hendricks, and the "taking off" of other conspicuous men, and the attitude of the many industrial combinations, are matters that should compel one to pause and reflect. The civilization of Europe and America has reached a period in which transition from old to new forms is in high activity; when the advocates of progress and the stationaries are contending for supremacy in legislation, social life and industry, when "conservative" and "liberal," "socialist" and "reformer," "communist" and "monopolist" are terms frequently heard wherever men gather for serious discussion, and these by their significance indicate the grave questions that press for answer in the minds of the people at large.

Some of our mentors in Church and State are apprehensive of violent outbreaks, fomented by the angry disagreements of capital and labor, that will bring in their train sanguinary conflicts between the law-abiding citizens and the discontented and law-hating classes; but we are of opinion that in those countries where constitutional government exists the crises of transition, that must attend the advancement of the working masses toward equality with classes heretofore claiming superiority of privileges

and authority, by reason of family pretensions or wealth, will not be productive of serious harm.

We believe that in our own country there prevails throughout the people a current of practical good sense, or common sense, that discerns what is substantially advantageous to community interests and is hostile to rowdyism and mob-violence. With the spread of intelligence and the extension of privileges by national and state authority, a higher comprehension of personal right has become the property of the working man. This intelligence with regard to personal right involves a better moral status among the people, and that lends great strength to the maintenance of order at times of popular excitement. In our metropolitan centres where the minions of indolence, vice and crime are specially congregated, their influence is apparently great; but at large the under-current of opinion and inclination is on the side of existing systems of government and social order; and while the industrial masses are ready to welcome any enlargement of their privileges, and a nearer approach to equality in the distribution of the results of labor, they know the reactionary effects of attempts to force changes, and would as a whole condemn the turbulence and strife of a factious outbreak.

Abroad it has been the policy of governments to prevent the masses from knowing their real power as an element in civil affairs. In this country the spirit of its institutions, is to enlighten the people generally concerning their relations to the civil order, so that their interests shall be represented in state legislature and in community administration.

Here the broad-viewed economist believes that the more intelligent the public is on questions of public and private rights the better and safer will be our civil institutions. We believe this for psychological reasons. The better a man knows his mental constitution, the better able is he to understand the natures of other men and to adapt himself to his surroundings, and to win success in his sphere of work. The higher one's understanding of his own needs, the clearer his perception of the needs of others, and

with this clarity of perception grows a stronger feeling for his fellows, and a deeper interest in their welfare.

We say then to our public men—philanthropists, educators, capitalists—to all of commanding positions and large influence, withhold not the best means for scattering intelligence among the people. Let all be instructed in things pertaining to themselves, their bodies and their minds, and to their relations to each other as citizens and fellows in a grand democratic community.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication :

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

TEMPERAMENT MODIFIED. (J. M.)—Temperament is just as much a matter of inheritance as cerebral organization ; and like the organs of the brain, it may be modified through culture and environment. A person with a marked expression of the Motive temperament finds a place, let us say, in a book store, or in warerooms where objects of art are sold ; he remains there for a long time, and is constantly subject to the intellectual or æsthetic impressions which surround him : he is led to study in the lines of his employment, and so the better to perform his duty. In the course of years the strong, angular characteristics of the Motive change and soften through the growth of the intellect, the impression of the Mental becomes stronger, and indeed, may predominate finally.

MOTIVE TEMPERAMENT AND STATURE. (PITTS.)—This temperament is usually associated with tallness but not necessarily so. It may be seemingly limited to the limbs, and the head show a strong excess of the Mental. In such cases the person is slim and comparatively light in weight, the complexion is light, and the skin appears deli-

cate and thin; the eyes are, taking complexion and hair, blue or grey. Associated with the Motive we should find those qualities which express positiveness, individuality, decision and force. A person of medium or low stature may have a strong infusion of the Motive Temperament: such men are bony and muscular, with dark complexion, and crisp, wiry, dark hair.

DEFICIENT VOICE.—*Question*:—I have always been deficient in vocalization, have a dull and harsh voice; my breathing powers are restricted in some way; I may have the Catarrh, as I cannot breathe freely. Can you give me some information about my state.—S. A. C.—*Answer*: You are troubled probably with Catarrh in a chronic stage, with congested and thickened membranes of the throat, pharynx and larynx. It may be that the tonsils are in some way defective, and contribute to the trouble. We would advise you to consult a physician who makes the throat a speciality. Care in your living, the avoidance of all congestive substances in your diet, and also the avoidance of exposure to dampness and chills would be beneficial.

TAKING PLASTER CASTS. (H. G. M.)—We have several times given advice on this subject; the method is not difficult, and consists briefly in the following: Use good calcined plaster, mix it with cold water to a consistency of thin batter, and then apply it to the object of which you may wish to make a cast. If an apple, or egg, for instance, one end may be pushed half way into sand and the plaster poured from the spoon upon the exposed part; it will flow over and adhere to the surface, and when it is half an inch thick it may be allowed to stand a few minutes, and when set the whole matter is lifted from the sand. The part of the plaster which is mixed with sand should now be carefully scraped and smoothed with a knife, and some holes should be made with the point of the knife so that the two halves of the mould can be bound together when ready for use. The edge of the first half of the mould, where the joint is to be, should be oiled; then with the object still in the hardened plaster the soft should now be applied to the exposed part, letting it flow down against the edge of the half of the mould already made. After the plaster has set, a gentle effort will separate the parts, and the object drop out leaving an orifice, having the size and shape of the object; all one has to do now is to cut a small hole at the joint through which to pour the material for the cast. Before binding the divisions of the mould for the cast it should be oiled inside, then when the soft plaster is poured in, the mould should be rolled over from side to side so that the plaster will cover all the surface to a thickness of say half an inch, and then it should be permitted

to stand twenty minutes. When the mould is removed a cast of the object will be found. To take a cast of the face and head of a person is a rather difficult operation, and somewhat trying to the subject of it. We should not advise a beginner to attempt this until he has experimented a good deal with inanimate objects, and also taken casts of say, hands and feet.

TREATMENT OF CATARRH. ED. OF P. J.—I came to St. Louis to get treated for Catarrh of the throat. After a number of applications of Iodine, carbolic acid diluted with glycerine, potash in different degrees of strength, etc., I became convinced that drug medication was not the right way to cure me, and found it must be a mistake to take a thing into the system already poisoned. I bought Dr. Page's "Natural Cure," and went down to first principles, for about ten months living on apples, wheat, dates, nuts, bananas, raisins, pears and Graham bread, dispensing with meats, eggs and milk, while baked beans and vegetables, potatoes and plain articles of that sort were eaten; the result is, if Catarrh means a running from the nose and thick mucous as secretions, a bad taste and foul mouth, I can say now, that I am cured of it, and if not entirely well in all respects I am certainly so much better that I consider myself well on toward complete cure.—C. H. R.—Our correspondent certainly adopted the right course. As Catarrh is the symptom of constitutional derangement, it is essential that treatment of a constitutional nature should be tried, and a proper diet is one of the best methods of such treatment. To our other correspondent whose complaint is noticed in this column, we would suggest a trial of C. H. R.'s judicious course. Inquiries are coming in constantly from Catarrh sufferers, and we add for their edification, go and do likewise.

IN a letter to us dated April 5, 1885, a well-trained teacher of Gardner, Tenn., says: "It is a fundamental principle of pedagogics to learn the *unknown* from the *known*, the *unseen* from the *seen*, the *abstract* from the *concrete*," and yet a large majority of the teachers of this country are endeavoring to teach, train and nourish the mind without any knowledge of it whatever, simply from the fact that they have utterly disregarded these fundamental principles of acquiring knowledge of the unknown, invisible, intangible, metaphysical mind through the medium of the known visible, tangible physical body. How can a teacher properly classify and teach his pupils unless he can look into their faces and read their thoughts, purposes and desires. I feel that there should be a great revolution in teaching. I think all teachers should be trained in the science of phrenology."



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

Prophetic Dreams.—"Never was a person known to dream of a thing that never had occurred either in his imagination or in reality."

The above statement is recorded in the present volume of the JOURNAL, page 119 in an article by J. C. Caldwell, M. D., criticising a former paper entitled the "Phenomena of Immortality." Without indorsing the articles criticised I beg permission to differ with Dr. Caldwell on the point quoted, and give my reasons for so doing. As I shall speak from personal knowledge I will be excused in speaking of myself.

When a boy I was very credulous and to be convinced of anything only needed to be told it, but years of experience with mankind and the study of human nature have made me very skeptical. Long since I wrote in my daily journal, "One demonstrated fact is worth ten thousand theories," and I have acted on this principle ever since. Though skeptical now I am, as some express it, "gifted with prophetic dreams and premonitions." I have had thousands of dreams that have come to pass, and have been warned of danger by impressions. A common dream vanishes as a passing thought, while a prophetic dream burdens my mind and becomes fresh in my memory the next evening when I retire. The greater the event dreamed of, the heavier does it weigh on my mind. Some prophetic dreams come to pass as I dream them and others need interpretation, some of which I can interpret and some I can not. If I am going to meet an enemy I dream of him in the form of a snake. I know the kind of enemy by the kind of snake, and how much of an enemy by the size, etc. If I kill the snake I overcome, and if he bites me I get injured. If I am going to make friends I dream of fish; the size and kind of the fish denote their value. To dream of muddy water denotes trouble, the extent and thickness of the water inform me of the extent and severity of the trouble. I might mention many things that are tokens to me in a certain class of dreams, but I will relate something more tangible.

In 1880 I was in the state of Alabama where I dreamed of being in Utah and travelling up Spanish Fork Canyon on a Narrow Gauge train. When about thirty miles from the mouth we arrived at a small town. I went out and stood upon the platform. Snow lay in patches on the ground. I saw a railroad leading off to the left and telegraph wires

stretched by its side. I asked a gentleman standing near, where that road was going to, and he said "to Colorado." I asked how far it was built and he answered "two miles." Then I went inside; the train sped on, and the dream ended. Nearly two years after I was travelling up Spanish Fork Canyon on the Utah and Pleasant Valley railroad and about thirty miles up we stopped at a little place known as Clear Creek. I stepped out on the platform and saw the snow in patches on the ground, a railroad leading off to the left with wires stretched beside it. There stood the man I had seen in the dream, and I asked him where the road was going to, and he said, "to Colorado." In response to a query as to how far it was built he replied "two miles." I then entered the car and went to Pleasant Valley. The road "going to Colorado" is now what is known as the Denver and Rio Grande. I may add that I knew nothing of a projected road between Utah and Colorado until I saw it leading from the U. and P. V. in 1882. Here is a dream fulfilled literally over one year after being dreamed of and fifteen hundred miles from the place of dreaming. If Dr. Caldwell should call on me to explain how it were possible for me to dream literally of a thing that should afterward occur, I could not answer him, for I am ignorant of any philosophy by which it can be explained, but I know it did occur. The explanation of foreknowledge puzzles us, but I believe it will be simple enough when once understood.

I could relate some dreams more marvellous than the one just related, but it would be encroaching on space. I know there are such things as prophetic dreams, but how they originate, and by what laws they are governed I do not know—I have not even a theory. If there is any known philosophy that will explain such phenomena, I will be highly pleased to learn it.

C. H. BLISS.

An American Botany Bay.

EDITOR JOURNAL.

Dear Sir:—I have been exceedingly interested in your article, in the November number "An American Botany Bay." From a child I have always felt a strange interest in prisons and their inmates, and in these later years, in which as you say "Crime and pauperism are increasing" am led to ponder sadly the question, what is to be done with this increasing number of vicious and dangerous persons?

Alas who can believe that imprisonment ever reclaims? It seems to me the only thing gained by it is the safety of the community, while exacting from it enormous taxes, to support these and reformatory institution. Your suggestion as to transportation seems the best thing possible. The taking of the vicious out of all old surround-

ings, the giving of them larger space than the confined atmosphere of a prison, and when properly officered and guarded, they may in time become better characters. And certainly as you say "Society would breathe freer." Your article is so thoughtful and excellent, that I hope and trust it will be widely circulated and considered, and its suggestions adopted. In it so many of the questions that for many years have agitated my mind, my pity for degraded, miserable prisoners, inclining me one day to visit them with "Flower mission" sentimentality, the next to feel that the wretches deserved all they got, seem so well settled, that from my heart I thank you for this most instructive and much needed article.

Cousin CONSTANCE.

INSTITUTE OF PHRENOLOGY.

THE American Institute of Phrenology takes this method of thanking those students at the late session of the Institute who united in making up a small amount of money to be added to the Building Fund. The large attendance, over thirty, of men and women at this session compels serious considerations of the matter of having a permanent place where the courses of lectures by the nine or ten different instructors can be efficiently given, with the aid of an always-ready apparatus and illustrations. Situated as the management is, compelled to hire temporary rooms and to fit them up annually, there are many conditions of embarrassment that annoy and hamper the work of the Institute. It is often a matter of wonder on our part that where so many persons with means are personally cognizant of the excellent service done for the community at large by phrenological means there are not some who will contribute liberally toward establishing this chartered and laborious movement upon a solid foundation. Had the Trustees but ten thousand dollars at their command a lecture-room and hall for the public display of the museum would be soon equipped in a convenient location. H. S. D. Sec'y.



PERSONAL.

THE sudden death of Vice-president Hendricks on the 25th of November, at his home in Indiana, caused general regret. Mr. Hendricks was a genial, amiable man, and made friends wherever he was. When the news of his death was circulated in his own city people would not believe it, and his house

and the street in which he lived was crowded with sympathizing friends. His death was caused by paralysis of the heart. He was in his sixty-seventh year, having been born at Zanesville, O., on September 7, 1819. He was elected to Congress in 1851, and in 1862 was elected to the United States Senate. In 1872 he was elected Governor of the State of Indiana. He was a strong candidate for the Democratic Presidential nomination in 1875, but accepted the second place on the ticket when Mr. Tilden was nominated. After the election he resumed his law practice, from which he was again called last year by his nomination to his old office on the Presidential ticket. As Vice-President, he has presided in the Senate with dignity.

ALFONSO, KING OF SPAIN, died on Wednesday, November 25. He had for some time been in failing health, which was not improved by his anxiety about the dispute with Germany over the Caroline Islands and his recent tour through the cholera-infected districts. Becoming alarmingly ill on November 23, his physicians declared that he was suffering from consumption accelerated by dysentery, and a series of spasmodic fits brought the end. He was but twenty-eight years of age and has reigned eleven years. He leaves two children, both girls. The queen, Mercedes, has been appointed regent.

WILLIAM H. VANDERBILT, called the richest man in America, died suddenly of apoplexy, December 8th last. His health had not been good for some time but he was not considered at all seriously indisposed. Mr. Vanderbilt succeeded to the main bulk of his father, Cornelius Vanderbilt's wealth and great railroad interests, and had devoted himself for the most part to their extension.

GEN. GEORGE B. McCLELLAN, died [at Orange, N. J. He was nearly sixty years old. The son of a distinguished Philadelphia surgeon, he was educated at West Point, where he took high rank for scholarship, and services rendered in the Mexican war, soon after gave him rapid promotion. Entering the army of the Union at the beginning of the civil war, he achieved a series of brilliant successes in Western Virginia; later in the celebrated Peninsula and Maryland Campaign he displayed much address in manoeuvre, fought hard, and often successful battles where he was forced to fight, and always inflicted severe loss on his adversaries. But he also manifested great reluctance to begin operations until the last man and last gun were ready, and a force so overwhelming secured that he could checkmate his adversary in a predicted number of moves. That disposition first unsettled and at last destroyed the confidence of the government in him. But no praise can be too great for his splendid services in organizing the Army of the Potomac, and placing it in

the field, and the memory of the enthusiasm and devotion with which he inspired his troops comes up anew amid the universal tribute evoked by his death to the purity of his character.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

Happiness is unrepented pleasures.—*Socrates.*

Mind unemployed is mind unenjoyed.—*Bravee.*

A man who cannot mind his own business is not fit to be entrusted with the king's.—*Saville.*

Many elephants cannot wade the river; the mosquito says it is only knee-deep.—*Bengali,—Long.*

Our confidential friends have not so much to do in shaping our lives as thoughts have which we harbor.—*F. W. Teal.*

Tell an ignoramus, in place and power, that he has a wit and understanding above all the world, and he will readily admit the commendation.—*R. South.*

If a traveller does not meet one who is better than himself or his equal, let him firmly keep to his solitary journey; there is no companionship with a fool.

We cough when something wrong gets into the throat. What a tumult there would be if some men had to cough every time something came out of their throats.

In God's own might
We gird us for the coming fight;
And strong in Him whose cause is ours,
In conflict with unholy powers,
We grasp the weapons He has given—
The light, and truth, and love of Heaven.
—*Whittier.*

First Peddler—"What are you carrying?"

Second Peddler—"Patent medicine."

First Peddler—"Well, all right; you go ahead and work up the business, and I'll follow."

Second Peddler—"Why! What are you carrying?"

First Peddler—"Gravestones."

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

The close of the day is too light a garment for most of us this cold weather.

Dar's mighty few promises dat hol's good. De peartest boy sometimes turns out to be de lazies' man.

—Clerk: "What did you say? He's a shovel engineer on the railroad? You mean a civil engineer." She: "Oh, I dessay your right, sor. It's him what shovels coal into the engine."

A blubbering little fellow explained his tears to a companion: "Pa sent me after codfish for breakfast, an' I went fishin'. an' was gone three hours, and now we have been havin' some bulldozin home."

The President of a life insurance company recently received a letter in which the writer said: "In case of deth please explain to me what the aires would get when I dye."—*Allentown Register.*



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

RATIONAL COMMUNISM; The Present and the future Republic of North America. By a capitalist; pp. 498, 12mo. Price, \$150. Social Science Publishing Co., New York.

This is probably the most remarkable of the books which have presented theories for solving the special problems now vexing the souls of humanitarians and statesmen. The book is carefully written; every paragraph shows thought and it is not the work of one day or one year as the gist of one self-reliant mind. One may easily imagine the author watching for the index of the reception of this child of his heart as well as of his brain. So perplexed over several problems, had this "capitalist" become, that his anxieties disturbed his rest and in visions of the night he saw his ideal in detail. There are very few questions affecting the well-being of mankind that are left out of consideration. Very many of the propositions will be generally acknowledged to be not only plausible, but worthy of experimental adoption, others are so extremely radical that they will find few advocates. As a whole the book is worthy of a careful, unprejudiced perusal by thinking people; yet we think that it would in all probability be largely misunderstood by the most of readers.

"A government of the people, by the people," in its best and fullest sense is the author's teaching, albeit his plea for so governing is somewhat *new*. He says:—"The wisest and best government that can ever be devised for men's guidance, and one under which he may dwell in peace and harmony with his kind is, *that which shall extend to him the widest individual liberty compatible with public order*. First establish just systems, then treat all men and women as human beings, human brothers and sisters, and you will find no further use for a code of law. Advisory rather than *compulsory* government is advocated; all lines of transport and travel, all institutions, all commerce manufactures and agriculture, to be under the control of the government. The writer sagely concedes that this ideal republic can not become a real one very speedily. Father Time was the guide and teacher in the ten "Visions" here transcribed. At the close of the tenth night of wandering he declared his name and signified his intention of going out of the business, so we must be content with the revelations of these pages, which are probably all that our brief lives will ever know of the republic which our great, great, great grandchildren may enjoy provided the dominance of acquisitiveness and one or two other organs in the base of the brain is radically modified in public phrenology, and "the survival of the fittest," is rigidly enforced by persistent hygienic living and *adjustable* marriage contracts, where connubial mistakes can be shifted to—the other fellow.

VOICES OF THE MORNING. By Belle Bush. 18mo, pp. 270, cloth. Price, \$1. Published by J. B. Lippincott & Company, Phila.

A hopeful, cheery series of poems, written by one whose warm sympathies clothe the lines she has written with an odor of roses. Perhaps of the many specimens of her work, which have a versatility that is striking, the Spirit of Song conveys an appreciable idea of her capability. To quote a verse:

"The Spirit of Song is straying,
By the beautiful River of Dreams;
And her pinions of thought are playing
With the rays of the morning beams.

The shores with the dewdrops are shining,
Like the star-spangled meadow of night,
And the "smiles of the angels" are twining
Their wreaths in the garden of light."

She writes of patriotism, of home, of melancholy, of objects in nature's scenery, of life in the world, and of death; and of love certainly, because that is a subject no true poet may avoid. Here is a strain from the Song of Eros to the Hours,

"I am Love, the Eternal, the Holy and High,
And I rule over regions afar;

With the day-god I look from the blue curtained sky,

And at eve I am seen in a star.

I breathe in the soft flowing streams,

I live in the maiden's dreams.

And my smiles hang the bow o'er the path
of the showers,

And the turtle-dove sings a lay of love,—

And love is the song of the flowers."

Miss Bush writes pretty things, good things, healthful, hopeful lines.

EVOLUTION AND RELIGION. By Henry Ward Beecher. pp. 145, 8 vo. Price, 50 cents. New York: Fords, Howards & Hulbert.

This volume contains a series of eight sermons which excited wide comment at the times of their delivery, and are still objects of interest in religious and literary circles. In these discourses the distinguished pulpit orator arrays his convictions of the relation of science to religion, presenting the result of many years of thought upon the most vexed subject of modern time. He says:

"For myself, while finding no need of changing my idea of the Divine personality because of new light upon His mode of working, I have hailed the evolutionary philosophy with joy. Some of the applications of its principles to the line of development I have to reject; others, though not proven—and in the present state of scientific knowledge perhaps not even provable—I accept as probable; but the underlying truth, as a law of nature (that is, a regular method of the divine action), I accept and use, and thank God for it!

"That great truth—through patient accumulations of fact, and marvelous intuitions of reason, and luminous expositions of philosophic relation, by men trained in observation, in thinking, and in expression—has now become accepted throughout the scientific world. Certain parts of it are yet in dispute, but substantially it is the doctrine of the scientific world. And that it will furnish—nay, is already bringing—to the aid of religious truth, as set forth in the life and teachings of Jesus Christ, a new and powerful aid, fully in line with other marked developments of God's providence in this His world, I fervently believe."

In these discourses Mr. Beecher does not evince any diminished force of thought or power of imagery, in spite of his seventy-three years.

MYRTILLA MINER. A Memoir. Houghton, Mifflin & Co., Boston.

A little volume, evidently the work of a grateful heart that must tell the story of a noble life. From childhood to maternity it

was a career of struggle. Handicapped by poverty and sickness Miss Miner nevertheless bravely made her way forward until she acquired education and capability of self-maintenance. Experience as a teacher in the South before the war convinced her of the importance of providing for the education of negro girls, and with these convictions animating her soul she went to Washington, and there organized the movement that later developed into what is known as the Miner Normal School for Colored Girls. The enterprise, earnestness and zeal that Miss Miner displayed in this excellent work are well described by the writer of the memoir. She attracted the interest and practical co-operation of distinguished men and women, among them Horace Mann, Dr. Samuel G. Howe, Joshua R. Giddings, Owen Lovejoy and Gerrit Smith; and finally, in 1863, an Act of Congress was passed incorporating the Institution for educating colored youth in the District of Columbia, which put the final seal of success upon her labors. Not long, however, did Miss Miner survive this good fortune, for an accident while riding occasioned such injuries that her health never strong, was so broken, that she died a few months later. The memorial is appropriate and a fitting study for our young men as well as our young women.

BRYANT AND HIS FRIENDS: Some reminiscences of the Knickerbocker writers. By James Grant Wilson. *Illustrated* with steel portraits of Bryant, Paulding, and Halleck, and manuscript *fac similes* of Bryant, Irving, Dana, Drake, Willis, Poe, Bayard Taylor, John Howard Payne, Geo. P. Morris, and Alfred B. Street 444 pp., 16 mo. Cloth, gilt top, \$2. New York: Fords, Howard & Hurlburt.

Given a pleasant subject with abundant material at command, and a writer who wields a facile pen we may expect a taking book. This thought has impressed us as, we glanced through the neatly printed pages. No one who has heard of Cooper, Halleck, Percival, Paulding, and other names, some of which are mentioned in the title above can turn over twenty pages of the first chapter without becoming interested. The notes on Bryant's life are interwoven with reminiscences of poets, essayists, journalists, artists and public men of prominence forty years ago and we read of them with much pleasure, the fluent graceful manner of Mr. Wilson, being an undercurrent of attraction that unconsciously exercises a more than common influence upon us. The author says in his preface that it has been his "peculiar privilege to have enjoyed more or less intimacy with all the 'Old Guard' of American authors mentioned in the following pages, excepting only Joseph Rodman Drake, and with most of those introduced in the concluding chapter on Knickerbocker Literature;" so that he had

himself gathered much material of personal interest—letters, poems, facts, incidents, etc., now for the first time published. Among these is a poem on "Abelard and Eloise" which is given in *fac-simile* of Drake's manuscript, and many letters of Halleck's, showing the genial grace and quick, literary instinct of that writer; also letters of Samuel Rogers, William Gilmore Simms and other noted men. A fine series of letters from the elder Dana will be welcome to many readers, while the manuscript *fac-simile* of his "Little Beach Bird" which was, he says, "copied by a more willing than able old hand" (in his ninetieth year) is a pathetic souvenir of that venerable poet, who, born before Bryant (in 1787) survived him about a year, dying in 1879.

PUBLICATIONS RECEIVED.

THE PROCEEDINGS OF THE CANADIAN INSTITUTE, Toronto, being a continuation of the Canadian Journal of Science, Literature and History, the Secretary sends us this pamphlet which illustrates a creditable degree of activity among the members of the Institute.

THE JOURNAL OF HEREDITY. A popular Science Quarterly, edited by Mary Weeks Burnett, M. D.—This magazine treats of subjects of vital importance to society. It is deserving support. Edited by a lady having a medical education, its scope will doubtless include chiefly those topics which concern the health of the body and mind, especially in relation to the progress of society.

THE INTERNATIONAL STANDARD.—A magazine devoted to the preservation and perfection of the Anglo-Saxon weights and measures, and the discussion and dissemination of the wisdom contained in the great pyramid of Jeezeh in Egypt.—Publication Office, Cleveland, Ohio.—We think that the motive for assuring this publication is sufficiently worthy. The subjects, however, that compose the table of contents are not such as to attract popular reading. We think it would be well for the contributors to show the utility of the Saxon weights and measures by argument and illustration, and point their advantage over contesting or invading systems, notably that of the metric. In this way, we have no doubt, public sympathy would be enlisted and something like support obtained.

JOURNAL OF THE AMERICAN AKADEMÉ, edited by Dr. Alexander Wilder, occupies a field so near the border of supernaturalism, that a high degree of psychological sensivity is necessary for the appreciaition of its matter. A very interesting article, however, by the editor appears in the November number, entitled "The Philosophy and Effects of the Zoroasters." In this the writer shows

the high moral principles of fundamental Zoroasterism and the essence of the ancient religion of Persia.

COUNTING ROOM MAGAZINE.—A new claimant for the attention of business men, devoted to the interest of commerce, and finance, manufactures, economics, etc. Designed to be a current authority on counting room affairs. Price, \$2.00 a year. C. W. Dacosta, Publisher, Jacksonville, Florida.

OGILVIES' POPULAR READING, No. 24, contains several complete stories by popular authors. Price 30 cents.

CATECHISM ON ALCOHOL AND TOBACCO, with Scripture responsive exercises.

PRIMARY TEMPERANCE CATECHISM.—These two little publications have been prepared by that well-known writer on the didactics of temperance, Julia Coleman, and are published by the National Temperance Society, in the interest of the National Woman's Christian Temperance Union. Price 5 cents.

FLOWERS FOR WINTER DAYS.—Designs of chrysanthemums, white orchids, white roses, arranged and illustrated by Susie Barstow Skelding, authoress of "Flowers from Field and Garden," etc.

SPRING BLOSSOMS.—Designs of pussy willow, and cat-kins, pansies, orchids, buttercups, ferns, and poems by prominent authors. Arranged by the same author.

MIDSUMMER FLOWERS.—Designs of maple leaves, clematis, wild raspberry, meadow sweet, berries and fern, with poems by prominent authors; some in fac-simile of handwriting. Arranged by the same author. Price of each, \$1.50.

FLOWERS FROM HERE AND THERE.—Poems arranged and illustrated by Susie Barstow Skelding, comprising the three above named, in elegant cloth binding.—The above are charming samples of work by artist and publisher. The floral plates are in each case charmingly drawn and accurately colored? while the binding itself is in each case a striking sample of delicate taste.—We must commend the publishers Messrs. White, Stokes & Allen, of New York, for their indefatigable zeal in producing such dainty and beautiful representations of floral life. The frequent appearance of such productions is indicative of public appreciation. For the drawing-room table there is scarcely anything that can be thought of superior.

THE NATIONAL TEMPERANCE ALMANAC for 1876. Compiled by J. N. Stearns. It gives the latest statistics from the Revenue Department and other sources, contains tables of national and State organizations, has twenty beautiful engravings, with stories, anecdotes, puzzles, etc.—Price 10 cents; \$1 per dozen. J. N. Stearns, Agent, New York.

THE NORTH AMERICAN REVIEW for December is strong with military history relat-

ing to the late war, and several topics of public interest are sandwiched in also. The public seems to indicate a special fondness for reading of the war, judging by the space given in our periodicals to battles and soldier biography.

LIPPINCOTT'S MAGAZINE for December is agreeably literary, containing in its list of topics, sketches of Charlotte Brontë's life in Brussels, and Letters and Reminiscences of Charles Reade. For next year the publishers announce a change of editorial management, and a new garment for their magazine.

CURRENT EXCHANGES RECEIVED.

THE ECLECTIC MAGAZINE OF FOREIGN LITERATURE, E. P. Pelton, New York; **American Art Journal,** W. M. Thomas, New York; **United States Medical Investigator,** Chicago; **Christian Thought Bi-monthly,** C. F. Deems, New York; **The Electrical World,** New York; **St. Nicholas Century Co.,** New York; **Notes and Queries,** S. C. & L. M. Gould, Manchester, N. H.; **Albany Medical Annals,** Albany, N. Y.; **The Sanitarian,** A. N. Bell, New York; **The Hahnemannian Monthly,** P. Dudley, Philadelphia; **Cincinnati Medical News,** J. A. Thacker, Cincinnati; **Our Little Men and Women,** D. Lothrop & Co., Boston; **Le Progrès Médical,** Bourneville editor, Paris, France; **The Illustrated Catholic American,** New York; **The Theosophist,** H. P. Blavatsky, Madras, India, appears in new form; **the New York School Journal,** A. M. Kellogg, New York; **Industrial America,** New York; **The Western Rural,** Chicago; **Queries,** Buffalo, N. Y.

TREASURE TROVE AND PUPIL'S COMPANION for December appears with a tasteful executed cover. There are good things in this magazine for the children. In the selection of poems, however, the critical taste of the editor is not evidenced. Several new features of interest to young students are introduced into this fresh volume.

NEW BOOKS.

DRAWING IN CHARCOAL AND CRAYON for the use of students and schools. By Frank Fowler. Heliotype studies. Price, \$2.50.

OIL PAINTING; a hand-book for students and schools. Price, \$1.50.

BAD DRAINS AND HOW TO TEST THEM, with notes on Ventilation. Price \$1.40, cloth.

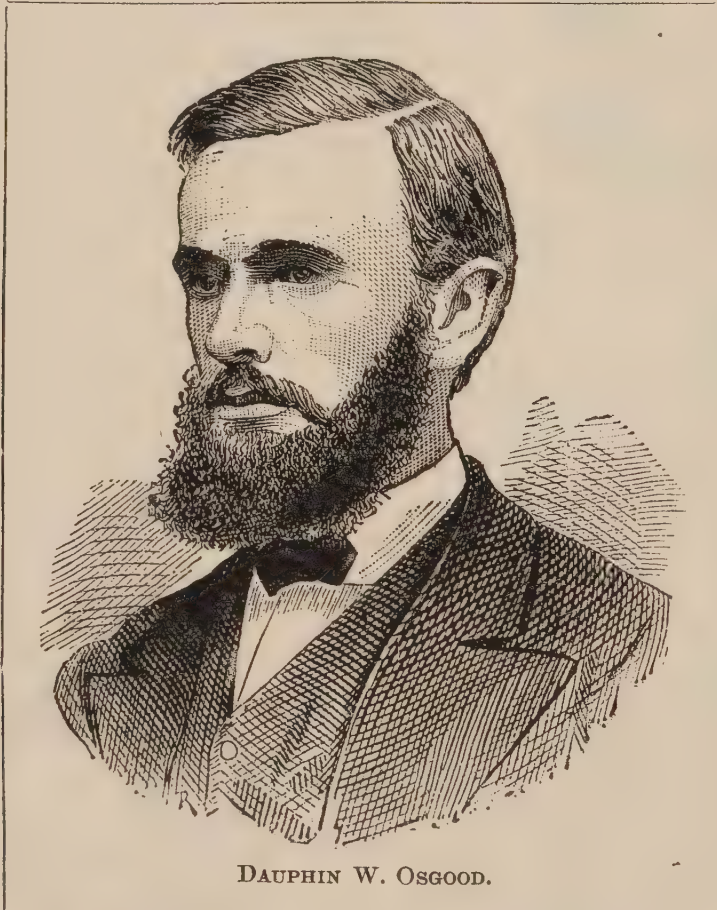
QUADRUPEDS. Zoology for Boys. By Mayne Reid. Illustrated. Price 80 cents.

SCIENTIFIC CULTURE AND OTHER ESSAYS. Josiah Parson Cook, L.L.D.. Price \$1.

WHY WE BELIEVE THE BIBLE. By J. P. T. Ingraham, Price 60 cents.

USE OF THE MICROSCOPE IN CLINICAL AND PATHOLOGICAL EXAMINATIONS. By Dr. Carl Friedländer, of Berlin. Price \$1.50.

BOY TRAVELERS IN ARABIA. By David Wise. Price, 90 cents.



DAUPHIN W. OSGOOD.

MEDICAL MISSIONARIES.

DAUPHIN W. OSGOOD ; WILLIAM ELMSLIE ; BOUDINOT C. ATTERBURY ; GEORGE D. DOWKONTT ; WILLIAM R. SUMMERS.

IT is a matter of gratification to bear witness to the prosecution of a good work by good men, and the movement that is the inspiration of this article is worthy of such a characterization. Referring the reader to the portraits we first briefly sketch them in the following terms :

In the head and face of Dauphin W. Osgood, we read sincerity, self-poise, and consciousness of power. The head is broad above and backward from the ears, showing courage, executiveness, en-

ergy, and power to struggle with difficulty and opposition.

The head rises at the crown, showing dignity, self-reliance, ambition, integrity and determination. In the middle top-head Veneration and Spirituality are well marked.

The intellect is of an incisive, specific and critical character, enabling him to acquire knowledge and apply it definitely. His knowledge of character should have been excellent, and his influence

among men easy and effective. A good combination of morality, aspiration, affection and force.



WM. ELMSLIE.

This portrait of William Elmslie indicates power, harmony and force of character, yet so held and directed as to make it effective. The massive forehead evinces predominance of meditation, power to plan and think and theorize; ability to look ahead and lay out work, and also to judge character and motive so as to mold and govern men easily and implicitly.

The Perceptives are large enough to give quickness of observation and to enable him to gather facts which the reasoning and planning talent requires to serve as a basis for future action. Being broad in the region of the temples, he has considerable of the devising, contriving, organizing quality.

He is large in the department of imagination and whatever is æsthetical. He is a natural inventor, clearly sees the ways and means requisite to the consummation of results. The top-head is broad and long as well as high, showing strong moral sentiment, quick and abiding sympathy, faith in well-directed effort and an insight which promises results in the future. He has prudence, energy, ambition, thoroughness, natural financial

skill, and ability to make the best of circumstances by making everything he possesses subserve his plans in a successful manner.

An intense thinker, an earnest worker, and with too much brain for the body, he was always liable to exhaust his vitality through the excessive action of the brain.

Dr. Dowkontt possesses two natures in one; the intellect of his mother which gives uncommon quickness of perception and intuition, and the ability to know everything at a glance; that involves the forehead and takes in a little more than that which is not covered by the hair. That part of the head looks like the mother's, and it gives him his mother's quick instincts and instantaneous powers of observation and decision.

The middle section of the head which is shown by the length of a line drawn from one ear to the other, over the top, and including the strong nose, are from the father's side of the house. He knows like his mother; he drives like his father. He has Firmness enough to make him sturdy and inclined to oppose people, or



GEORGE D. DOWKONTT.

subjects not in harmony with his opin-

ions and purposes. He knows no such word as fail, and naturally adopts responsibilities, and pushes the cause with a relentless earnestness as long as he deems it the right thing to be done. He is honest, just, self-reliant; believes in himself, is watchful, inclined to direct work and prosecute the cause in which he engages.

He has Combateness and Destructiveness enough to engage in anything that requires push and energy, courage and fortitude. That under lip, as dimly seen through the beard, means, "I said it and it must be done." "I have decided and who shall disturb the decision?" "I have started, I am bound to win. Oppose me who can!"

There is a fine quality, sensitiveness and susceptibility and even tenderness, when tenderness is called for; but there is an energetic self-reliance, a practical and positive type of thought and character which means leadership, superintendence, self-help and the tendency to help everybody else.

The portrait of Dr. Atterbury indicates a harmonious organization; the elements of health and mental balance adapting him to achieve success in any department to which he may devote himself. He is naturally an easy worker; glides smoothly into that which he has occasion to do, and makes everything work at the same time harmoniously.

He is a practical observer, gathers knowledge from all his surroundings, remembers what he sees, hears and experiences. He is ingenious; turns his hand to anything with facility. He is a natural mechanic, a good financier; will make anything a success financially that has in it the elements of success, for he will find them, apply them and push them.

He has force of character; his head is broad from side to side, indicating earnestness, executiveness, a full share of policy and prudence, and as we have

said, ingenuity and financial ability. He has the talents of a mechanic, a scientist, a physician, a surgeon, an accountant, an historian. His social and sympathetic elements are strongly marked, but he will be chiefly known as a bright, ready, easy worker, with power of adaptation and ability to push the cause he adopts.

The whole contour of the organization of William R. Summers indicates power, self-reliance, ability to think, plan and reason, and the tendency to direct, control and dominate. He has Firmness enough to carry him through any amount of difficulty, and Self-esteem enough to give him a sense of his own



BOUDINOT C. ATTERBURY.

value and capacity, and a consciousness of ability to wring success out of reluctant conditions.

He is cautious, honest, friendly, inclined to supervise, and help and work, rather than to be genial and companionable. He has a logical and critical type of mind, with considerable imagination and inventive resource; is not so much a financier as a director, and a man to push a cause and master difficulties, and overcome obstacles.

With his dark complexion, he is tough

as a whip, tenacious, enduring, and as positive in spirit as he is enduring in fibre. Here are the elements of a natural leader and a great worker.

N. S.

For many years past a worthy movement has been gaining disciples, and to-day the Christian world accepts it without further argument as an important adjuvant to the extension of religious and moral truth, although it has never been included in any time honored creed, catechism or "doctrinal" sermon. It has,

that under the soothful touch of skilled hands the sense of gratitude leads the patient to become a willing listener. In a degree he is at the mercy of the doctor, realizing that, if he be "a tough customer," he is apt to keep a civil tongue in his head and the wise healer ventures to sow the good seed of Gospel truth in mental and moral ground that may be as unpromising as the neglected or mutilated or rum-sodden fencing within which it is enclosed.

We give portraits and sketches of a few of the leading spirits in the move-



WILLIAM R. SUMMERS.

however, the prestige of being first taught allegorically by the first Missionary, in his delineation of the good Samaritan; and by him it was practically demonstrated through all the days of his thoughtful tender-hearted ministrations. If souls are to be won with any degree of permanency, the effort to that end must be made primarily through the medium of comforts to the perishable body.

Out of the reception of this truth has grown the new system of Christian missionary work combined with medical and surgical skill addressed to the ailing flesh. Experience has abundantly taught

ment. The reading public is already familiar with the names of Duff and Livingston, whose pioneer labors have influenced many to follow in their steps.

DAUPHIN W. OSGOOD was born in Nelson, N. H., Nov. 5, 1845, graduated in medicine at the University of New York, in the spring of 1869; opened a sanitarium at Foochoo, China, Dec. 1869, where he died Aug. 17, 1880. Dr. Osgood in addition to his arduous labors as a physician and missionary teacher completed a translation of Gray's Anatomy into the Chinese language, and so accurate is the work that it has be-

come the foremost text-book of the subject in China. Dr. Dowkontt is the possessor of two volumes of the work, presented to him by Dr. Boudinot C. Atterbury, during his recent visit to his home. The records of the Foochoo sanitarium show that during his ten years residence there, Dr. Osgood gave gratuitous medical aid to 51,838 poor persons. Two years previous to his death he established an asylum for the victims of the opium habit, and of 1500 patients, who underwent treatment, a very large number were dismissed "cured."

In physique Dr. Osgood was large, symmetrical, vigorous and strong; mentally well-balanced, with a large endowment of good common sense, quick intuition, and clear practical judgment. In compliance with the request of native patients an inscription in Chinese was placed on his tomb.

WILLIAM ELMSLIE was born in Aberdeen, Scotland, June 29th, 1832. In 1864 he left his native land to become a medical missionary in Cashmere, India. Eight years later, Nov. 18, 1872 his useful life closed amid the scenes of his labors. Dr. Elmslie's name is included in the list of "illustrious shoemakers;" his love of books was so strong that at twenty years he held certificates of proficiency in the classics and sciences, as well as in shoemaking. So rapidly did he win the love and confidence of the people of India that complaints were lodged against him by native priests, and the Viceroy, to his own permanent disgrace, issued an order suspending the work of Dr. and Mrs. Elmslie. The sorrow of the good man was too great to be borne at a time when he was exhausted by continuous and severe labors, and he did not live to complete the journey of exile to another place. On his arrival in Cashmere, Dr. Elmslie entered the temple of an idol as a spectator. A priest threw a garland of flowers around his neck. He says in a letter: "Fancy me decked as if to worship this contemptible stone image." It was at once ludicrous

and prophetic — the massive, rugged Scotchman in his severely plain garb, with the gay blooms on his breast. To-day those idolatrous people garland his name with sweetest praise, and his tomb with the brightest flowers.

BOUDINOT CURRIE ATTERBURY was born in New York City, June 10th, 1852, entered Yale College, class of 1873, but did not graduate. He attended medical lectures at Bellevue Hospital College, New York, and was graduated there in 1876. He then took a post graduate course in Europe, and travelled extensively, gaining a wide experience. Socially he is a great favorite with educated people. Physically he is of fine form and presence, the refinement of generations of intellectual, pure-minded ancestors seems embodied in this young man, who, unlike most of his *confreres* never had any battles with adversity. Born to wealth, he uses it liberally in the furtherance of the cause he has espoused. With every inducement to a life of elegant luxury and ease, he has voluntarily taken up an arduous work in a difficult field. In 1879, Dr. Atterbury opened a hospital in Tient-Sin, China. Within nine months he had attended 11,000 patients. In 1884 he came home, remaining seven months. He is now engaged in the building of a large hospital for the medical-missionary work in connection with the Pres. Board by whom he is commissioned.

GEO. D. DOWKONTT was born in London, April 25, 1843. His father was a Polish refugee, a soldier of the Revolution of 1830, where he obtained the Cross of the Legion of Honor. He married an estimable Englishwoman, and lived in comfort until his son George was eleven years old. Rendered homeless at that time by adverse circumstances the boy worked his way through great difficulties and with wonderful endurance and patience. In Regent street the penniless, hungry boy held a gentleman's horse a few minutes and received a shilling; half was spent for supper for the family,

and half for morning papers the next day. It was a beginning, and the little fellow kept his charge in bread for some weeks, when the mother died of a broken heart. At sixteen George entered the British Navy as an ordinary seaman. He was so large of frame as to pass for twenty years old. His aptitude soon gained him the position of dresser and dispenser to H. M. Dock Yard, Portsmouth. While in the Royal Navy young Dowkontt's pleadings led Miss Weston to take up her admirable work and, in 1871, the R. N. Temperance Society was organized by the energetic man. In 1874, Dr. Dowkontt entered the Liverpool Medical Missionary work, remaining three years, then came to Philadelphia, and graduated at Jefferson Medical College, March, 1881.

Without means or friends, knowing only one man in this city, Dr. Dowkontt came to New York immediately after graduating ; in the brief space of five years he has established four dispensaries, and a training institute. A large, well-built brown-stone house, No. 118 E. 45th Street has been leased, and furnished, and ten students are there busily engaged in professional studies. Dr. Dowkontt is pre-eminently fitted to organize and push to success enterprises of a philanthropic nature. He wins at once the confidence of those with whom he comes in contact ; is concise in statement, energetic in manner, and skillful as a physician. His eldest son is preparing to follow in the same path.

WILLIAM R. SUMMERS, the first graduate from the New York Medical Missionary Training School was born April 28th, 1855, in the Isle of Guernsey. From boyhood he was an explorer. He desired knowledge but hated the restraints of school, and playing truant spent his time in a printing office. While yet a boy he was a strolling acrobat and successful conjurer. He, it was, who imitated Dr. Slade at the Dublin Rotunda some years ago. The mother of Dr. Sommers became interested in the Liverpool Medi-

cal Mission influenced by Dr. Dowkontt, in 1879, and young Summers, forsaking his conjurer's tricks, joined with his mother in the mission work and obtained a position on a local paper ; in the autumn he joined Dr. Dowkontt in Philadelphia. Then he began to realize the need of systematic education. Impressed with the sincerity and value of the man Dr. Hanlon, of Pennington Seminary, bade him welcome there, and bravely did he apply himself, regardless of shabby clothes and needed comforts. He entered the University Medical College of New York, graduating the spring of 1884 with high honors. In October he sailed for England, and January 7th, 1885, in company with Bishop Taylor, of the Am. M. E. church went to his post in Central Africa. Dr. Summers is of commanding presence, dignified, rather sedate, and given to few words. His letters are always well written and interesting.

That all philanthropists can not enter the field at the same door is an accepted fact ; Mr. D—— a young Scotchman now resident of Chicago, is one of the purse-bearers for the Medical Missionary work. Risen from humble rank he realizes the need of systematic work among the poor and from the first dollar he ever earned until now, when he is earning a large salary, he has promptly given one-tenth of such earnings to the cause. His letters to Dr. Dowkontt are not only interesting but of practical value.

CORNELIUS VANDERBILT, eldest son of William H. Vanderbilt, was born at New Dorp, Staten Island in April, 1844. Early manifestations of good business abilities made him a favorite with his grandfather. Mr. Vanderbilt was one of the first active supporters of Dr. Dowkontt's enterprise, and his interest has never flagged. Not only does he give financial aid, but counsel and advice of especial value. He comprehended the need of practical training in the best methods of reaching the poor ;—training which could not be obtained in regular

medical colleges, and to that end has been a very generous helper in this as in many other philanthropic movements. In person Mr. Vanderbilt is prepossessing and affable on acquaintance, though distant to strangers. He is a pleasant conversationalist, a charming host, and an ardent patron of the fine arts. His house is a temple of treasures as well as a *home* in the true sense of the word. A. E.

A FACE.

Only a face on the busy street
 He saw as he passed along ;
 Only a face, but it was so sweet !
 It haunted him like a song ;
 Amid the press of hurrying feet
 It haunted him for long.
 And many a day, as faint and tired,
 He travelled the way again,
 He saw it still, and felt inspired
 'Mid crowds of teeming men;
 And a stronger wish was in his heart
 To do good by word or pen.
 But the stranger who passed him never
 knew

The joy that he had given ;
 How the smile of his face, so kind and true,
 Had been as balm from heaven,
 And gladdened and cheered a weary heart
 By storms and tempests driven.

Only a face on the busy street ;
 Who can tell how many more
 Were cheered and refreshed by that face so
 sweet,
 By the kind look that it wore,
 Amid the press of hurrying feet
 And the city's dreadful roar ?

ANDREW M. LANG.

KNOWLEDGE.

KNOWLEDGE is the result of mental operations, and is the same in kind whether possessed by the rude and uncivilized man, or the philosopher. Beginning with the ordinary experience of mankind, it develops into its higher forms explaining the phenomena of nature. It is then called science. Science then, is a knowledge of nature and her laws. It is man's prerogative to understand nature's laws and to anticipate her results, from the constancy and uniformity of her operations. She is constantly soliciting our attention to the multitude of objects around us, and unfolding her rich treasures of knowledge for our instruction and for the accomplishment of universal beneficence. We may begin with the impressions made upon our senses as the starting-point of all science, and arrive at the most abstruse logical deductions from which we may obtain an exact prevision of the sequences of the operations of nature, in the universality of her operations. Observation is the first step in the acquisition of knowledge. By it the mind

duly investigates the objects to which it is directed. Then comes discrimination which leads us to classification. As science is a knowledge of nature and her laws, it is an advance upward from the platform upon which the ordinary mass of mankind more humbly tread, when new discoveries and inventions are evolved from the storehouse of universal knowledge, and made to be the rewards of careful experiment and unremitting effort. The present state of advancement in knowledge is the result of assiduous study of those crude facts with which every one is acquainted. The merest schoolboy has seen that fire produces heat, that bodies unsupported fall to the earth, and that the current of electricity given off in the lightning-flash produces a shock ; but these are matters of ordinary experience to him. The scientist proceeds from these facts to the Atomic Theory of matter, which teaches that matter and force are inseparable, and that chemical changes occur throughout all nature with numerical precision. Science is not a meaningless

term, nor the dogma of philosophers alone, it is systematic and rational, and leads to the development and guidance of art. There is no reason why we should not all understand nature's loudly proclaimed intelligence, of the beneficence of a wise Creator.

Scientific inquiry depends wholly upon boldness of thought and fertility of invention, that vitality of intellect which evolves ideas where ordinary minds see nothing; that earnest mind which being warmed by the friction of its own thoughts, rises above the plane of thoughtless indifference. The vulgar see nothing in nature's beauties and mysteries. To such the poet aptly alludes :

"A cowslip by the river's brim
A yellow cowslip was to him,
And it was nothing more,"

but it tells much more to the inquiring mind of genius. Facts whether relating to physics or the world of mind were perfect before their evolution into the sphere of human knowledge, and this evolution is a bringing out from the great reservoir of nature her hidden treasures. This is a result of boldness and intensity of thought, accompanied by careful experiment and concentrated effort.

Our attainments can never exceed our aspirations ; nor can we make any great progress without the anticipation of an end in the future. All great achievements have been by persons who

looked forward and upward to some high purpose, and applied their hands and minds to the necessary means with concentrated and unremitting effort. When we consider the many branches of education and departments of human effort, and the corresponding diversities of intellect, we can find no more appropriate way for the highest development and improvement than the satisfaction of our aspirations. Nature is truthful in her teachings, and one can not better fit himself for doing good than to consult his peculiar aspirations and strive for proficiency in his own sphere of life.

All science is of the mind, and may be regarded as a signal of its march. In the present advanced state of knowledge we possess stepping-stones to fuller developments than were ever known to the philosophers of Greece or the sages of remote antiquity. The obstructions of empiricism, and of heathen philosophy have given way before the conclusions of science ; and these have furnished us with such a voluminous system of modern philosophy, that our age is constituted an era of surpassing brilliancy. Indeed this is a day of great mental excitement and of deep philosophical research and investigation. Many of the sciences have been well nigh reconstructed, and the teachings of nature obtained by exact demonstrations have received new interpretations yielding her most valuable treasures.

D. N. CURTIS.

IMPROVE THE MORALS.

FROM the days of Moses, the great lawgiver of the Jews, to the present time much stress has been laid upon the cultivation of the moral nature of man by religious teachers. The commands in the Decalogue appeal directly to holiness of life and the necessity of doing justly in order to secure happiness. Washington maintained that our nation, in order to be perpetuated, must have an enlightened moral sentiment instilled

into the minds of the people. Swift said "All nations have agreed on the necessity of a strict education which consisted in the observance of moral duties." Christ pronounced the severest woes upon the Scribes and Pharisees, who were wise in human affairs and intellectual attainments but deficient in equity and justice, — "devouring widows' houses and making long prayers at the corners of the streets, to be seen of men."

For this lack of moral rectitude the Jews were led into captivity and Jerusalem was destroyed by the invading armies of Rome. Thus has it been in all civilized nations in past ages, and thus it will continue to be with all countries in the future, where the moral sentiment of the people is not sufficient to support the eternal principle of justice.

"There are many who believe with Patrick Henry, that 'there is no way of judging of the future but by the past.' If this mode of judging is correct the hope of the future is disheartening to all philanthropic minds. The man whose views of moral culture are founded on phrenological principles believes in the progress of the race in morality, and consequently, has faith in the Scriptural prophesy of a future time, when universal peace shall prevail in the world. Phrenology teaches that man is endowed by the Creator with a faculty called Conscientiousness, and if the training of that faculty is neglected in childhood, immorality and crime will be the result of adult age, even if the intellect be highly cultivated. With this great truth staring the educators of the world in the face, the training of conscience in the public schools of New England is not made obligatory by legislative enactment. At a meeting of the school committees of various towns in Hampdon county, Mass., held in Springfield a few months ago, the subject of moral training in schools was discussed briefly, but without creating much interest on the subject. The superintendent of the Springfield public schools said that teachers were expected to instruct their pupils in the moral virtues, but the laws of Massachusetts did not require them to teach the commands of the Decalogue. The discussion ended with a general smile when an aged clergyman—a member of the school committee from the town of Monson said: "Would you not have instructors teach their pupils the command in the Decalogue, 'Thou shalt not steal?'"

The Secretary of the Board of Education

of Massachusetts, who has recently visited the hill towns in the western counties of the State, complains of the antiquated method of giving instruction, in some of the schools, by incompetent teachers. This incompetency may apply to mental, but not to moral culture. Seventy years ago it was a common practice in the public schools of New England to give moral instruction to the pupils every Saturday forenoon, having for a text book a work entitled, "The New England Primer," which contained the basis of moral conduct, which was the Decalogue. The school committees of that day were men who labored for the cause of education without large salaries, and in many instances the leaders or the chairmen of the committees were the clergymen of the parish where they resided. It is generally admitted that vice or crime among educated men of the present time is more common than it was among the earlier descendants of the Puritans, taking the population into consideration.

And now we see no way to stop the career of crime and its increase except by applying the principles of Phrenology to the education of the young, and having proper instruction given directly to the innate sentiment of Conscientiousness. The church has not done it and can not do it by merely appealing to the devotional nature of man, and neglecting his morals. It is quite common for dishonest persons to be devout; and conversion, however genuine, does not change essentially the mental nature of man, but only gives a new direction to his natural faculties. Let all public instruction be based on truth, with the rational commands of the Decalogue for its basis of morality, and Phrenology for the true exponent of the *how* to give moral instruction, and in due time reformation among well-educated persons will become apparent. This theory is not antagonistic to the Christian religion as taught in the Scriptures, for natural and revealed truth will always harmon-

P. L. BUELL.

A NEW PHRENOLOGY.

IN an address before the American Association for the advancement of science, by the retiring president, Prof. J. P. Lesley, as reported in the *Popular Science Monthly*, for December, after exhorting the members to zealous and careful study of facts and to "dead work" in connection with them, in which he is severely, though justly, sarcastic on the charlatanry and ambition that causes so many to thrust themselves forward with a few facts or a crude philosophy, he winds up with some excellent advice for the relief of an over-tasked portion of the brain by the exercise of another portion of it; and in this advice he declares the cerebellum to be the seat of the will-power, which the over-worked president of a railway company has been exercising to such excess that he falls asleep at the directors' meeting. He prescribes that the exhausted man ride some youthful hobby—specifying practice on the violin, and the playing of billiards. This for the relief of the overworked cerebellum! The professor asserts that the physiology of the brain is sufficiently well understood to permit the physician to prescribe with some assurance, and in this he will not probably be disputed; but from what source has he learned that the overworked part of the railway president's brain is the cerebellum?

The prevailing opinion with physiologists appears to be that one important function of that organ is the co-ordination of motion, as in walking, and in voluntary movements of the arms, but not of the face or of the muscles of speech, while another function is in some way connected with the sexual instinct. Skill in playing on the violin would therefore require a high degree of one of the functions of the cerebellum. In experiments upon pigeons, after the extirpation of the cerebellum equilibration is lost, and the bird although unable to fly, walk or stand, yet retains its will-

power, as seen in the effort it makes to escape a threatened blow.

The venerable professor's prescription is far better than his physiology, for it would result in the relief of one portion of the brain and the exercise of another, although the parts do not correspond with his statement. It would seem as though the advice from an Australian judge which he quotes only to depreciate, "Pronounce your decisions, but beware of stating your reasons for them," would have been useful to him with a slight modification.

It is remarkable that men of science, careful in most things, no sooner touch upon anything relating to Phrenology than they lose their ordinary circumspection, as though it were a very simple subject, one that may be safely guessed at; and so they will give it no serious attention. In this spirit a remark was made in my hearing in the course of a lecture by Prof. Cope, at Franklin Institute: "The Phrenology of fifty years ago is not true;" and another by the same gentleman as reported to me by a member of the Institute, "We have no Phrenology now, but we will have."

Phrenology appears to be the stumbling block over which professors of science bark their shins, and which they will continue to do until they consider that the years of careful observation, which have been given to it by men as well able to observe as themselves, entitle their opinions to some respect. Were they to reflect upon the different modes of investigation practiced by physiologists and phrenologists, upon the extent of the work done by phrenologists, and that physiologists have attained only to the localization of two centres for mental faculties (language and amative-ness), and even these but imperfectly defined, and that both of these tend to confirm the accuracy of the phrenologists, they would be less inclined than

some of them at present are to treat with contempt the phrenological system.

There are two classes of persons who treat Phrenology as though it were merely a system of craniology, as described by a Western editor who said he could tell by the bunions on a boy's head whether he was going to be hung or become a missionary ! One of these classes has the credulity to believe it, and will declare a man to be honest, if he has a fullness at a definite situation, in spite of

his antecedents. The other class appears to comprehend the subject no better, and they assume that craniology is everything, but, having a little more discernment of character, they find instances in which there is a full amount of brain with little character to correspond, and so, without giving any attention to the temperament or the quality of the brain, they discard and decry the system of Phrenology.

J. L. CAPEN, Philadelphia.

FAMILIAR TALKS TO OUR YOUNG PEOPLE. NO. 2.

ALIMENTIVENESS AND INDIVIDUALITY.

THE first instincts or faculties of the human mind that come into exercise, are those that have to do with the growth of the body. The little infant for some months after its birth does little besides feeding and sleeping. Nature simply concerns herself about its getting

just over and in front of the ear—you know the parts of the head that are called the “temples.” In scientific language they are called the *temporal* regions from the *temporal* bones of the skull, that are situated there ; and so the temporal lobes of the brain are named as they lie against the temporal bones. The openings of the ears pass through the temporal bone—I give you a picture of the brain divided into lobes, which shows where the temporal lobe is. Several very important organs of the brain lie in the



ALIMENTIVENESS LARGE.

more bone, muscle, and nerve, and with its gradual increase in size new powers awaken into life, until baby at five or six months begins to notice things, “crows” and is pleased by the caresses of friends. The instinct to eat has an organ in the brain called Alimentiveness, which, if large or strong, makes one very fond of eating, when he is a grown man as well as when he is a boy. It lies in the lower region of the brain near the front end of the temporal lobes, those parts of the brain on both sides that are



LOBES OF THE BRAIN.

temporal lobe : Destructiveness—that was the subject of our talk in the January number, —Acquisitiveness, Secretiveness and Vitativeness, all, like Alimentiveness, have to do with keeping

and sustaining the body. In the Phrenological works they are called physico-preservative or selfish organs, as they appear to be specially designed to take care of Number 1. The organ we are now talking about lies in the region of the number 9 of the drawing.

When Alimentiveness is large, the head is wide above the cheek bones, as shown in the figure, and its influence is very marked. While everybody may be said to like to eat when hungry, yet people whose Alimentiveness is small or moderate will not show any anxiety about

and will spend a great deal of their time in talking about victuals and drink.

This organ gives one taste in the selection of food; I could scarcely suppose a good cook without large Alimentiveness. Look around you, and you may be able to pick out the big girl who will make a good cook, and like to cook, and the boy who is always on hand when the dinner-bell rings, and who likes to be in the kitchen when mother is getting up a rice pudding or drawing a fowl for dinner. Your jolly good liver, like the stout party in the picture, is never



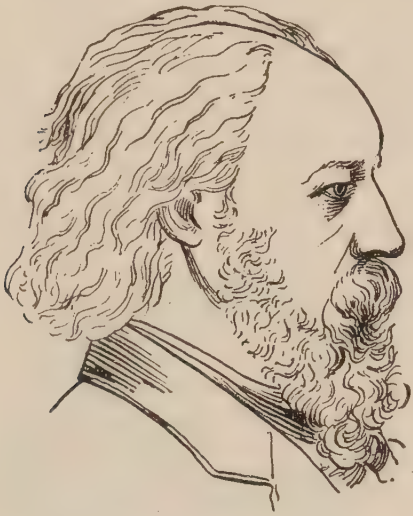
THE JOLLY GLUTTON.

meal-time. If they are doing anything that interests them, they may let the table wait some time, or must be called more than once before they will go to it. Persons whose employments are sedentary, teachers, writers, artists, are not as a rule remarkable for good appetites, or fondness for eating, and when hard at work often forget all about dinner; but those who have large Alimentiveness appear to be nearly always ready to eat. They take a great deal of pleasure in their meals, and are fond of variety in their food,

happier than when the table groans under the weight of toothsome meats and drinks. His mouth waters when allusion is made to broiled larks, roasted oysters, apple pie, cream pudding.

The cultivation of this organ, by letting its inclinations have their way, tends to make people coarse in their tastes, and more or less rude in manner to say nothing of the bad habits that are thus fostered. See the animal satisfaction of our fat champion of the knife and fork, as he welcomes the coming of the boar's head.

Pork, I would not counsel any of my young readers to eat often, as I think that it somehow is not a proper article of



INDIVIDUALITY LARGE.

because the appetite has a great deal to do with our success in life. Nature gave man the organ we have been talking about, so that its prompting should serve to keep him healthy, and able to do the work that belongs to his part in life — but to make it an instrument for indulging in all kinds of excesses, stuffing the stomach with good or bad food and drinking all sorts of liquids, is to break nature's laws and make Alimentiveness a means of self-destruction. Eating unfit food, or too much of good food, is the first step toward sickness; big feeders as a rule are unhealthy, and break down suddenly with indigestion, or heart-disease or apoplexy. The use of alcoholic drinks is due to the improper exercise of Alimentiveness; and let me say here to the young reader that those who have

diet, and does not help to form good principles in the matter of eating and



LITTLE TOT LOOKING IN THE WINDOWS.

living generally. We ought to get hold of true ideas about eating early in life, habits of drinking harmful things if

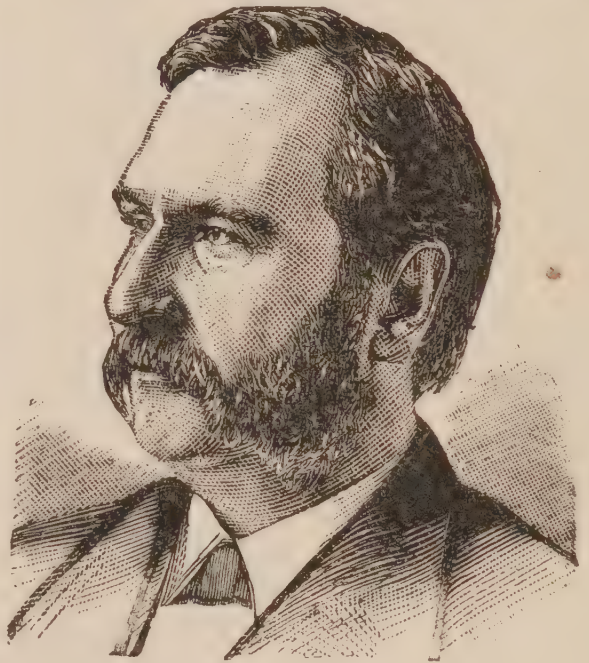
they are not watchful. You laugh at and despise a miserable drunkard when you meet one reeling along the street, muttering to himself, and perhaps throwing his arms about in a fantastic way, but you should understand that the poor fellow was once as orderly and clean and proud-spirited as yourself, and had no thought of ever becoming the degraded thing he is. Good fellowship, free and easy companions, "treats" to cider, beer, cigars, were the steps that led him downward until he found himself in the net of a bad habit, fond of drink, and too weak to break off. It is wonderful how great the power of Alimentiveness when perverted, corrupted, is. It seems to have an influence upon every part of the body weakens the very bones and muscles, and takes the grit, will, and spirit out of a man. Some of the grandest intellects the world has known, have been sacrificed on the altar of the appetite; thousands of men have broken down in mid-career, when the world was looking to them for great things, through improper or vicious practices in eating as well as drinking.

INDIVIDUALITY.

This is a faculty that belongs to the intellect, or what we call the knowing and thinking groups of faculties, and as Alimentiveness is the first of the self-preserved instincts to be active, so individuality is the first of the knowing or observing faculties to come into use with the growth of the infant. Its organ lies in the lower part of the front lobe of the brain, (see illustration of brain) and right in the central region of the head between the eyes, and just above the junction of the nose with the bones of the forehead. See the sketch of a young man's face in profile that shows it very large. When large the forehead projects considerably at that place, and when small the face shows little or no hollowing there, but the line of the nose may be carried quite straight up the middle of the forehead.

It is the action of this organ that in-

clines people to want to know about things. The little child is always looking, looking,—it points at this and that with its little hands, and cries, "See, see, see." One that has it particularly active is restless and ever on tip-toe, looking at everything in its neighborhood, going from one thing or person to another, and for the moment gazing closely at



PRACTICAL OBSERVER.

them. You often meet a little one who while walking with mother sees wonderful things at every minute as they go along the street and it is "See mamma, what's that? Oh, come, mamma, tell me what that big thing is over there." In the engraving we have a little girl out walking with her older sister, her Individuality is all alive and interested with the sights by the way—the toys and dolls in the shop window greatly attract her, and she pulls with all her might to have her sister go up close to the window so that she can see the pretty things inside. Other organs have something to do with her eagerness, but Individuality is one of the strongest at work. When you find a boy or girl with this faculty weak or small they don't show much interest in things about them; ask few questions; don't care much to go to the museum or collections of different objects, and show very little knowledge of things. They

pass for dull, even stupid, although they may have good qualities in other respects. Bright, quick-witted children are always well supplied with this faculty, and the dull ones lacking in it ought to be trained so that it will be made more active. Men with it large are distin-

guished for their fondness for seeing; everything that is going on they like to know about, and are stirring, active, fresh and re-active if they have a temperament like the dark-complexioned man in the illustration.

EDITOR.

THE STUPIDITY OF SENSIBLE PEOPLE.

SIR Isaac Newton constructed a house for his cats. For the convenience of the cat he cut a large hole for entrance, for the equal convenience of the kitten he cut a smaller one, and it was not until his attention was called to it that he realized the fact, which one would suppose might be self-evident to the feeblest understanding, that the large hole would have served for both. The author of the "Principia," one of the grandest works of the human intellect, failed to perceive that a kitten could go through a hole made for a cat.

Richard Brinsley Sheridan hired a suburban villa, and two days later received a visit from a friend, who was told to climb the fence in order to enter the house. "But why not open the gate?" the friend inquired. "Because I can't untie the string." "Why don't you cut it then?" Sheridan looked at him in amazement, drew his knife, cut the rope, walked through the gate, and turning around kicked it off the hinges. "If you love me, please kick me in the same fashion," he remarked to his friend. The most brilliant wit of his time, the dramatist who could unravel the most intricate complications in stage situations, had climbed a fence for two days for lack of the stroke of a penknife.

A few years ago one of our famous men was found dead under circumstances which gave rise to suspicion of suicide. One of his acquaintances remarked, "He was certainly crazy. One evening I called upon him and found him trying to write a letter. I could hardly see my way across the room. He complained that his eyesight must be failing, as it

was hard for him to follow the lines upon the paper. In surprise I turned up the gas. His look of astonishment as he glanced at the light, at me, at the letter, at the light again, was something impossible to describe. Of course he was crazy. If he hadn't been he would have turned up the gas himself."

So easily do we reach our conclusions; so easily do we take things for granted. Yet Sir Isaac Newton was never supposed to be "out of his mind," and Sheridan was never suspected of being a lunatic. The gas jet simply served to throw more light on the stupidity of a sensible man, instead of proving by its feeble glimmer the corresponding feebleness of his intellect.

Nothing is more constantly and completely surprising than these apparent lapses of intelligence in persons whose intellect is acknowledged to be superior to the average. From a fool we expect foolishness, and seldom have we reason to complain of disappointment. From the wise we expect wisdom, though we sometimes fail to find it. It is said that it is only the fool who learns no wisdom from experience, but the foolishness of sensible people is generally of a kind which experience can in no way modify. It is occasional, variable, unexpected, of a peculiar quality, admits no argument from precedent, gives no basis for calculation. Probably by contrast and incongruity its effect is heightened and it seems more senseless than ordinary dullness, because it is inevitably compared with the usual mental brilliancy.

We learn from the entertaining "Letters of Gustave Flaubert" that he had pre-

pared a dictionary of "the stupid sayings of great men," and the volume is a unique and amusing one. It was the illustrious Napoleon III. who made the profound observation, "The wealth of a country depends upon its general prosperity." The famous Havin wrote, as if giving utterance to a most valuable philosophical statement, "As soon as a Frenchman passes the frontier, he finds himself on foreign soil."

Emerson says, "Men who have commanded great armies and taken great cities, who have made laws for an empire, or proclaimed the greatest discoveries in science, have sometimes shown the utmost idiocy in connection with the commonest affairs of life."

Some of the greatest financiers are the first to involve themselves in financial embarrassments. Their familiarity with the fluctuations of the money market, and a long career of success, has made them careless of risks and consequences. The world looks on open-eyed at the colossal schemes carried on by the brains and capital of these men, and stares open-mouthed at the inch-long letters in the daily papers announcing their commercial crash. It is, in fact, only the great kings of finance who have sufficient knowledge of the situation to take such chances, or who have sufficient ability to handle the weapons with which they affect their self-destruction. Where we have confidently looked for the greatest financial wisdom we find the greatest folly.

The legal counsel who influences his clients to wise fore-thought and precaution, is quite as likely as the most stupid one among them to neglect proper provision for the future and leave his own affairs in the most hopeless involvement. We wonder far more at the sage counsellor than at his stupid client. In the case of the latter it was to be looked for—no more than might have been expected. In that of the former, it is a surprise and disappointment.

We are fully prepared to find the silly girl leaving off the warm wrapper to which she has been accustomed, in order to appear at a party in a low-necked dress. We are simply contemptuous—not surprised—when she wets her feet and ruins her boots because rubbers hide the pretty shoes and make the feet look larger. But when a woman famous for her common sense in most of the affairs of life, does precisely the same thing, and perhaps with even less temptation, it seems a silliness surpassing all comprehension.

The boy who after a game of ball drinks great draughts of ice water to cool his heated blood or goes into the river for the same purpose, is checked whenever possible and severely reprimanded at all times. When the wise physician shows some equally stupendous stupidity concerning the commonest hygienic laws, remonstrance is paralyzed upon our lips by an overwhelming amazement. It is the same sort of amazement which we feel when we see a person whose name is a synonym for prudence in most matters, deliberately eat something which he knows always injures him, or trust to a tradesman who has habitually deceived him, or lend money to a man who never pays him, or marry a woman who can never please him.

There is no greater proof of the stupidity of sensible people than the marriages that some of them make. If love be, as is sometimes asserted, a matter wholly of the heart, matrimony an affair entirely independent of the head, then some of the matches made by some gifted individuals may in a measure be accounted for. A man with strong domestic taste and aversion to society marries a fashionable flirt, and the quiet fireside for which he most ardently longed is the one thing he can never hope to have. The sensitive, conscientious woman marries a man who runs in debt for the very ring he places on her finger, and her life with him means one long mortification and misery.

As frequent as foolishness in marriage is foolishness in the management of children, such stupidity as would brand the parents as idiots, were it not for their good sense in all other matters. The skilful, thrifty housekeeper, carefully trained herself, and appreciative of all household excellences, allows her daughter to dawdle through the days ignorant of everything that can make her useful, or can make a home comfortable. The hard-headed, honest, industrious farmer lets his son slip away from the farm to the city, and sends after him supplies of money which he is fully aware support him in idleness and profligacy. The imbecility of second childhood seems to be reached and surpassed in the dealings of some of these sensible people with their own children.

Who will dare to define common sense, that least common, as we sometimes think, of all human endowments, and yet the quality most essential to every hour of existence? Our almost unconscious definition of a sensible person is, "One who thinks and acts as I do." But this becomes a ludicrous one when we reflect that according to such a definition there would be as many standards of sense as there are individuals in the community. "Orthodoxy is my doxy, and heterodoxy is everything that differs from it" is a statement quite as often made concerning our social as our religious notions. If for fear of offending we do not say it aloud, we nevertheless live under its conviction, and assume that those who differ from us are in the wrong. Of course if we did not think so we should agree with them.

It is, however, fair to concede that the sensible person is the one who in social life is loved by his family and friends, and respected by his neighbors; in commercial life, one who is honest and successful, securing the largest returns from the least investment of time, money and labor; in professional life, one punctilious in all engagements, true to all trusts and obligations, clear sighted and reliable.

In all cases the sensible person is the one who most perfectly adapts himself to his circumstances and surroundings, who submits uncomplainingly to the inevitable, who strives at all times to do unto others as he would have others to do unto him, and, in short in the words of one of our latter-day scientists, "harmonizes with his environments."

In every community there is always a class which illustrates these virtues in an uncommon degree, who attract admiring attention for their remarkable judgment, tact and success, the outgrowth of the most fully developed common sense. It is to these persons that we naturally look for all that is more satisfactory. We feel defrauded when it fails us, and argue that if such a lack of sense can be shown by persons possessing so much, there is little to hope for from the less gifted mass of mortals.

It is possible that we ourselves are illogical and consequently unreasonable. It does not necessarily follow that because a man possesses nine talents he must have the tenth also. We must take what we find, glad to get so much, not complaining because there is no more. Human nature is fallible. When men and women are found so symmetrically and fully developed that they display no single spot of weakness or folly, truly we shall have reason to expect the foretold millenium. "A fellow-feeling makes us wondrous kind," and a consciousness of our own short-comings should be the most powerful plea for consideration to others.

C. B. LE ROW.

SUNSET.

From hill, and dale and woodland,
The wondrous, golden light,
Softly now is fading,
As the faint sunbeams bright
Flit down the paths
Of pink and gold,
The guard of his glorious Majesty,
And through the lovely,
Glittering sheen,
The opal gates flash radiantly.

K. C.

W. H. VANDERBILT, THE RICHEST MAN IN AMERICA.

THE death of a man who controls great enterprises must always be deeply interesting to the public—and when such a man as William H. Vanderbilt dies, who has long borne the reputation of being the richest of all the rich men of America, and whose wealth was represented for the most part in ex-

ceive what such a statement involves; not merely the various forms of pecuniary investment, the numerous commercial or industrial enterprises to which so vast a capital may be applied, but the great moral obligations that are inseparable from its possession. A many-times millionaire is of necessity a marked man,



WILLIAM H. VANDERBILT.

tensive railway systems employing many thousands of men it must be expected that the event will have an importance that we may properly characterize as national.

One may say with glib facility, "He was worth nearly two hundred millions" but much reflection is necessary to per-

a subject for study; his daily life is a matter of public comment, and unless his cuticle is thick and his temperament insensitive he is made to realize that riches, like the crown of sovereignty, do not contribute to ease and comfort.

Some eight years ago we published a sketch of Mr. Vanderbilt with the por-

trait we give of him now. A little thinning of the hair and some added grayness, and the reader sees the man as he appeared not long before his death on the 7th of December last. In organization and character he resembled his father strikingly in many respects. At the same time there were elements of form and expression which must have been derived from his mother, and the resemblance to his mother was an improvement to constitution and character. His father inherited largely from his mother's side, consequently the intuitive spirit of the feminine character was conspicuous in his conduct, impressing him with readiness of decision and with certainty of being correct in his judgment. Thus our subject took on both masculine and feminine elements by inheriting from the father; courage, force, will-power, unswerving determination, and also much of the intuitive, sensitive, and susceptible. By inheriting from his own mother, who, we judge, inherited largely from her father, he received similar elements of strength, and also a practical intuitive sense of truth which belonged to his mother, thus braiding and blending the four elements derived from his masculine mother and his feminine father. By this we do not mean that the mother was grossly masculine, or that the father was weakly feminine; but we do mean that he who is fortunate enough to inherit his mother's intuitions and sympathetic sensibilities is largely more a man than he who acquires solely from the father the dry logic and the laborious energy that belong to the masculine type. If the reader will take into account, then, this combination of quality and tendency, talent and disposition, he will be able to understand the following inferences: First, that Mr. Vanderbilt was very clear-headed; that he knew for himself, and sought to find out facts in such a way as to be able to act without advice or external influence. He sought what other people know as material out

of which to form his own judgment; but like his father, he did not accept dictation. He had a memory that enabled him to hold his knowledge and carry it, as it were, in solution, so that it was invaluable. Like one who winds up a ball of yarn, he carried his facts and knowledge with him so that it might be unwound and brought into use. He was known for criticism as well as for quick observation. He read strangers promptly and knew how to select men for positions in his gift. His mind was more ready in forming judgments than is common, and whoever offered him facts on which to base a judgment was expected to talk to the point and hurry through their recital, or he would show impatience. He had the power of combination and orderly action. He could appreciate machinery and the combinations of affairs so as to make everything flow smoothly and harmoniously. He was not led away by imagination, but he rather disliked people who tell great stories or spin long yarns; he wanted the facts, and he preferred to make the inferences, and draw the conclusions himself. He was more cautious than his father; and was more disposed to look after details. He was energetic, courageous, very positive, and very headstrong, but more cautious in the adopting of plans and purposes than many; yet persistent, and remarkably executive in carrying out his will.

If he had been carefully educated he would have succeeded well in literature. He had good natural language, power to express clearly and vigorously whatever thought he wished to put forth. He had respect for age and talent, and was tender toward the aged and inclined to pet the young.

He was ambitious to be approved; cared more for public sentiment than his father did, and was more influenced by the good and ill opinions of the people. He was firm—quite as much so as the father, and those who opposed him sometimes might have considered him abso-

lutely obstinate. He had strong affections ; his friendships were steady and constant ; he was fond of home and society ; and under favorable conditions would show a great deal of personal magnetism in the direction of friendliness and cordial social sympathy.

He was no copyist, but liked to do things according to his own pattern, and would feel annoyed if it seemed necessary for him to imitate others. A natural economist, he was careful to use everything in a prudent way, and guard against loss and damage. He wanted a sound basis for all he undertook, and on that sound basis he pushed steadily, persistently, and constantly towards the desired end. He was capable of conciliating those who opposed him, but he did it more from friendliness and good nature than from any feeling of weakness in his cause. He wished to see the end from the beginning before attempting an enterprise ; and once settled upon its prosecution, he pressed onward with just as much strength and speed as the case would safely bear.

William H. Vanderbilt, eldest son of the late Cornelius Vanderbilt, was born at New Brunswick, New Jersey, May 8, 1821. His early life was characterized by much of the energy and industry which distinguished his father. He was sent to the Grammar School of Columbia College, where he acquired the requisite knowledge for a business life.

To his youthful mind, however, his father's example was a perpetual incentive to strike out for himself, and he eagerly looked forward to an early beginning of these efforts. At the age of eighteen, he entered the house of Drew, Robinson & Co., of Wall Street, where, as a clerk, he soon won the confidence of the firm, then known as one of the strongest operators in stocks in New York.

At the end of two years he left the office where he had the opportunity to become a partner in the firm, on account of impaired health, and assumed the re-

sponsibilities and difficulties of cultivating an unimproved farm. He had no previous education or experience in agricultural methods, but set boldly to work, and "from early morn to dewy eve" labored in his fields, never permitting others to do more than himself. The first seventy-five acres subdued and cultivated, he extended his labors until, in a few years, he had three hundred and fifty acres in fine and profitable condition on Staten Island. The wastes and barrens were transformed into a garden, and yielded a good income.

He was subsequently appointed to the Receivership of the Staten Island Railroad Company, which had become loaded with debts and embarrassments, and in this position he evinced the talents which have made him one of the first railroad men on the Continent. In two years he had paid off the claims against the Staten Island Company, connected it with New York by an independent ferry, and placed it upon a substantial financial basis. The stockholders then pressed upon him the Presidency of the company, which he resigned when called to Europe to attend upon his dying brother George.

On his return, he entered again upon a busy career. In 1864 he was elected Vice-President of the New York and Harlem Railroad Company, and the following year, of the Hudson River Railroad Company. From this time forward his life has been part of the railway history of the country. At once the confident and son of the old Commodore, he became the able assistant through whom the comprehensive plans of the mastermind were carried into quick and successful execution.

1869 the Central and Hudson River Companies were consolidated through the instrumentality of Cornelius Vanderbilt, creating a new corporation, and Mr. W. H. Vanderbilt was appointed Vice-President and Executive officer.

Cornelius Vanderbilt died Jan. 4, 1877. He had been sick for a year,

and his death had been so long expected that it caused no shock in the financial world. Long before he died it had been known that the railroad lines under his control would be kept intact after his death, and that Wm. H. Vanderbilt would be at their head. The roads with their perfect organization, passed from the hands of father to son without the slightest disturbance. Ninety-five of the hundred millions of the Commodore's property was given absolutely to his son. The contest of other heirs for a more equitable division of the estate is still fresh in the memory of all. A compromise was finally effected, and William H. remained in possession of his vast legacy.

Little remains to be said of Mr. Vanderbilt's history. The newspapers have discussed it at great length. He attended very closely to his great interests, extended his railway lines by lease and purchase, and became a large owner of telegraph stock and real estate. His colossal fortune grew of its own impetus, like a great snowball rolling down hill. His income enormously exceeded his expenditures, and increased his capital year by year until it has been estimated at from \$175,000,000 to 200,000,000. And in transmitting his wealth, care has been taken not to impair the integrity of the railway systems in which the bulk of it consisted. This, an economist would probably consider wise, and healthful to community interests in general, but the public looked for something more than merely an apologetic indication of benevolence from this man of enormous pecuniary resources, the owner of over sixty million dollars in United States bonds. His benefactions to public and private institutions, and individuals were many, but when we compare them with the benevolent work of men like Peter Cooper or George Peabody, and consider the great difference between the resources of Mr. Vanderbilt and their's it seems to us that the latter might have done much more. It has been estimated

that his bequests of a charitable sort were less than one per-cent. of his fortune. The public had some right, we think, to expect from this marvelously rich man some grand expression of public spirit—something much beyond a few donations to institutions already well established. But he had other views in the use of his money.

The cause of his death was apoplexy. He was accustomed to take breakfast at nine o'clock, and on the day of his death he ate heartily at that meal, and also at luncheon, to which he sat down at 12.30, probably less than three hours after leaving the breakfast table he showed a hearty relish for the food. Shortly after leaving the table he had an interview with Mr. Robert Garrett, President of the Baltimore and Ohio Railroad, in the course of which very important matters of interest to each were discussed, and matters involving some conflict of interests also. It is reasonable to think that Mr. Vanderbilt was somewhat warm in his expression of opinion, so that the blood already actuated by the impulse of a heart excited by a hearty meal, was drawn with unusual force to the brain and blood vessels that had grown weak were ruptured. He appreciated good living but was regarded an abstemious man for one in his position. He drank little or no alcoholic liquor of any kind, and did not use tobacco having given that up over thirty years ago. His force of will is well illustrated by the incident. It was in 1853 while the Commodore and William H. were on board the steam yacht *North Star* on their way to St. Petersburg—William was an almost constant smoker and was puffing his cigar one day when his father said "Bill I wish you'd give up that smoking habit of yours. I'll give you \$10,000 if you will."

"You needn't pay me anything" was the son's answer, and he threw the cigar overboard, and never smoked afterward. Perhaps that really creditable act, gained him ten years or more of life.

NOTES FROM A TEACHER'S DIARY.—NO. 3.

[Continued from the November 1885 number.]

Sept. 21st.—To-day a bottle fell from a girl's desk shivering into many pieces. The child was very much grieved about it, for it was full of porwiggles, "polly-wogs" she called them.

"Why Fanny," I said, "what is it?" "Oh dear, dear, I've lost them all, and my pet one will die." Some of the girls laughed, others looked very red-faced, and some showed great sympathy.

"How many more have bottles of young frogs?" I asked.

A good many hands went up, some very reluctantly. I ordered them to set their bottles on my desk. There they stood in line, long-nosed and broad-nosed, white and blue, green and yellow bottles of tadpoles. It was a little too much for my mirth, I laughed until I cried. Just at this point, and when Fanny had succeeded in picking up her scattered property, the door opened and the Superintendent of schools came in. I heard a low O-O-O from the back seats where the bottles came from as he seated himself by my side, and inquired if I had "just opened an apothecary's shop."

The bottles were filled with water to save the dear tadpoles lives, but none of them were corked.

"Yes," I replied, "what will you take toad or frog?"

When he learned about his niece's misfortune, for Fanny stood in that relation, he went into such a merry laugh that it caught all around. I did not need to reprove my pupils at all, I only suggested that I should not allow any person to rival my apothecary shop. Any one therefore who wished to add to the collection of bottles was at liberty to do so for the amusement of visitors. The bottles disappeared after school into numerous pockets. I have had the last of tadpoles for the present.

Sept. 28th.—I walked into the school-yard this afternoon at recess to see the children play, and get a breath of air; it

is sultry indoors in spite of all the open doors and windows. They were singing in a ring:

"Little Sally Waters sitting in the sun."

When they got to

"Rise Sally rise, wipe your eyes,

Fly to the east, fly to the west,

Fly to the very one that you love best."

Who should jump up but little Katie Beck, and rush through the circle into my arms and give me a kiss. Of course "teacher *was* it." So I impersonated "Little Sally Waters," to the great delight of my charge. I felt exceedingly tired when I went out but a little change quite rested me. Some nights ago there was a very beautiful path of fire upon the mountains a few miles away—the burning continues, it has not kept an even course nor burned all the live trees; a rain checked it one night, almost suffocating us with smoke. But now that it has gone higher up it looks as if there were a palace of light with towers and steps. It is very beautiful, but we all have our fears as the wind drives the sparks toward the city. Some poor people live at the foot of the mountain. I hear that several families have deserted their homes and moved into town.

Oct. 8th.—This is my birthday, what a variety of gifts have been laid upon my desk! Flowers, fruit, pictures, and many other things of childish value. It is sweet to be remembered by loving children, some of whom had only kisses to offer, and they were quite as acceptable. There is a funny boy in school who seems so full of mischief that he can not keep still. He can mimic nearly everything. It is quite amusing since he came from his country grandpa's to hear cocks crow, geese gabble, ducks quack, chickens peep, horses neigh, cows low, and turkeys gobble in the school yard. He has a regular training-school in the boys' yard. It is the droll-

est to hear him imitate the bull-frog, and all try to follow, and such shouts at their failures. He troubled me last term by imitating the children's voices, especially when one was in trouble. He is quite above that now, and takes to the animal creation, which is no harm. I have been teaching him to copy pictures to prove his art, if of value in that way. Constructiveness is well developed as well as Form and Individuality. I shall recommend that his parents secure for him a skilled teacher in drawing. His talent is worth possessing, and it will secure him from the outside influences that so injure a bright boy with nothing to do.

Oct. 19th.—I have several new scholars who seem very poor; they have few books and are not well supplied with home comforts. The other children contributed to help in buying books for them, and several mothers offered outgrown clothes. Their homes are all in ashes now but no lives were lost. The railroad company has employed the men as the sparks from the engine started the fire that burns on still. One little lad has a tumor over his eye. I asked him about it; he tells me it would cost fifty dollars to remove it, and his father is too poor to give that. I must do something for him.

Oct. 20th.—I called on Dr. T—— last night and asked him what he would remove the tumor on Willie's eye for. When he learned all the particulars he offered to do so for nothing. So he will save a precious life to the world, for his lack of sight has made the child very feeble. He is a lovely little fellow. God bless Dr. T——.

One of my pupils has been caught copying her lesson instead of committing it to memory, I had a long talk with her about cultivating her Conscientiousness. She lacks in that from faulty home training, and she is sly in mischief, needing careful watching, as she leads others into sin. She does not seem to take a full sense of this as yet; with her

it will be a thing of time. I have been reading to my pupils in the general exercise hour from Cowdery's "Moral Lessons" and asking questions upon the stories read. At first a large proportion of my pupils did not catch the exact suggestion the questions implied, but they have awakened thought and given a new impulse to my teaching. The boys never tire of hearing of Stuart Holland, who stood at his post on the ill-fated steamer Arctic, or of the crippled Hans, the Tyrolese boy, who could not go into battle, but who lighted the signal pile to warn of the approach of the enemy. I received a note from a lady this morning, informing me that one of my pupils, whose name is unknown to her, was caught stealing her choicest pears. I had no clue to the offender, but asked in my morning prayer for grace in behalf of the lad that took my friend's pears; and that he should not become a thief. As I glanced quickly over the the sea of heads before me I saw one crimsoned face and downcast eye. When he became aware that I was looking at him he raised his head. "Please, I'll never steal again, never," he said with choking voice. "My dear," I replied, "ask God to forgive you, and then Mrs. Grey, and keep your good resolution."

Oct. 28th.—Freddy, the imitator, has brought me a knighted soldier on horseback; it is well done for such a lad. He thrives with his lessons with the artist, and is one of my best boys of late. We are drawing maps. What a difference there is with the scholars about their ability to do this well. Some take hold of it as if born artists; others catch from the black-board exercise a very fair understanding of the way of doing, and how it should look. There are a few whose eyes are too near each other to give the maps their proper width; their work always looks pinched. I have had quite a serious time teaching some of them how to measure with a slip of paper. The paper invariably gets moved a little, and it is difficult to show them

that this spoils the proportion. Mary Finch can go to the board and draw each of the New England States from memory and put down the principal rivers, cities, railroads, lakes, mountains, etc. This is a blessed gift.

One little miss cuts out the dolls' dresses for all her young friends. I am told she is "a native born dressmaker." She looks at dolly, and no matter what the size, everything fits. I had to tell them then about the dolls' hats I was fond of making when at their age. Some of my older sisters were milliners and gave me beautiful silks and satins, so that my dolls' heads were always fashionably dressed. This was very delightful to the group of happy hearts clustered about me, for it seemed to them that I must have more sympathy with them in their playthings since I loved to make doll-hats when a child. One girl stands aloof; she never pets anything. She does not have a single doll, or flower, nor does she love children younger than herself at all. She is not a lovely child to me, or a favorite with any of her schoolmates. Boys she detests utterly

and wonders what they were made for. But she loves and obeys her mother, and works like a woman of thirty, with no variety in her young life; she neither asks for, nor seems to desire any. She is an average scholar, and makes no fuss over anything. I showed her a lovely doll one day, with the sweetest face a large toy shop possessed, and fashionably attired by my own hands, French kid boots and dainty mits the speciality. She looked at it with a sniff, and asked if I had been so foolish a lady as to dress a doll. "Yes, for you," I replied. "Wouldn't mother laugh to see me with a doll; why, I feel almost insulted. Give it to some baby." And that opened the way for me to tell her of the wanting faculties.

"Well, you needn't trouble yourself," she said, "I do, and shall always, hate anything that's little, and needs petting." She is only eleven, and looks even younger. Miss Kittie B—— went almost frantic over Miss Dolly so I let her hide it in her desk until school was over.

L. R. DE WOLF.

THE VANDALS, THE GOTHs AND THE HUNS.

THE *Vanduli* or Vandals originated so far back in legendary ages that the mists of antiquity still conceal their origin, though they are thought to be of Germanic extraction with a probable relationship to the Goths. An early writer says they first lived near the Sea of Azov, whence they moved to the Baltic borders. Later accounts find them in the Roman province of Dacia. The Goths in one of their fierce incursions nearly swept them from the earth. The women and their young children who were left remained quiet for a half century. Then in connection with other wild German tribes, they punished Gaul for three years, trying their strength in learning war again. Spain was next forced to feel their fierceness, and they settled in the province known in later days as Andalusia.

Thus the years passed on until 429 A.D. when Bonifacius, the governor of Africa, rebelled against the Roman emperor, and in his madness engaged these Vandals to come and assist him. They answered his call in vast numbers, and their immense hordes devastated the whole African coast. Perceiving his great mistake he hastily raised an insufficient force and hurled himself upon the javelins of the invaders only to meet defeat.

Collecting a much larger army, he made a second effort to rid Africa of this invited foe in vain; his dominions were now the possession of a people who had come to tarry and in 435 Carthage fell into the hands of the Vandal king, Genseric. Peace was established with them only by acknowledging their right and authority over Northern Africa, and sev-

eral important islands of the Mediterranean.

In 455 this dreaded people made a descent upon Italy, and for fourteen days plundered Rome. Unlike the Huns, Alaric, their leader, tried not to restrain their destroying fury, and works of art and glorious architecture were swept away in such a wanton manner, that it has given rise to a term for expressing the extreme of barbaric destructiveness in the word "Vandalism." For many years they carried on piracies and warfare, sweeping the Mediterranean Sea until their name was a terror and a threat to the surrounding nations, but Genseric died in 477, and their Nemesis was spinning upon his wheel the last threads of their fate.

The enervating African climate softened their natures and made them less formidable. Though they had destroyed two armies and two fleets, and a half dozen kings had borne the kingly title since Genseric. There came to their shores, at length in 534 A.D. a Byzantine general, Belisarius, who brought their last ruler to surrender, and he was borne in triumph to Constantinople, but did not long survive. The larger part of the Vandals were forced or persuaded into the Roman army and met death in the Persian wars. Africa absorbed the remainder in her nomadic population; and the Vandals, as a nation, were swept from the archives of our history.

The Goths who were first cousins to the Vandals, if not brothers, have been traced from the Gothones known to Pythias, 300 B.C., and later mentioned by Tacitus. In earliest historic days they fished and fought for life upon the Baltic coasts. Next we hear of them as dwelling upon the lands about the Black Sea as early as the third century. What impelled them to migrate from their frozen North to those regions is unknown. Perhaps they had only returned to an earlier home. Certain it is, they were sufficiently strong and daring to make formidable attacks upon Roman

provinces, in the early part of the Christian era. They were soon so dreaded that lands about them secured immunity from their attacks by payment of large sums of money.

In the year 251 A.D. they entered the Roman province of Moesia with an army that was said to contain 70,000 men, but as the women often followed the army, perhaps all are included in this number. The Romans under Decius advanced upon them, but were defeated, leaving the Emperor and his son dead upon the field of battle. It is said that 100,000 persons were slain. As we have only Roman histories of these contests with these early Germanic races, we can not know precisely what provocation may have been given at the time to incite to this invasion.

The next emperor, Gallus, bought immunity from their visits by a large sum of money and the promise of annual tribute. Long years previous to this time, the Romans had built a wall with ditches and a long line of fortresses to defend the frontier of the lands from which they had oppressed the German nations in the North through many years of warfare. This wall was built of stone and wood, and extended from the Danube to the Main a distance of nearly two hundred miles and then northward for a long distance. The land thus taken from the early German nations was called the Roman tithe land, as it was usually let to the Gauls and others upon payment of a tax or tithe. Undoubtedly this disputed territory and a purpose of restoration were the cause of the devastation that, afterward, the Romans suffered from the Northern nations.

In the year 7 A.D. the Roman general Varus was sent by the Emperor Augustus to command the army against the German people, with instructions to bring that country under the regulations of a Roman province. The Roman army went straggling along with a train of women, children and munitions. In the depths of a great German forest, with

its immense oaks of which Pliny said : " Created with the earth itself, untouched by centuries, the monstrous trunks surpass, by their powerful vitality, all other wonders of nature," they were attacked by Arminius, the chief leader of the German tribe Cherusci, and in the midst of a raging tempest cut to pieces. Varus killed himself. When the news reached the old Emperor, Augustus, he was quite distracted with grief and striking his head against the wall, called again and again " Varus, Varus, give me back my legions ! " This signal victory swept out the incoming wave of Roman conquest and made the Rhine once more the boundary of the empire.

It seems very likely that the Vandals and Goths, who belonged to the Germanic races, were in subsequent years only punishing the Romans for their indignities and their continued menace against Germanic liberty ; yet nations as well as individuals should have credit for their good deeds. The Romans built roads, bridges, fortresses, temples and cities such as that wild country had never known. Roman merchants brought goods to Germany and took home amber, furs and slaves ; and such became the fancy of the Romans for Germanic notions, they bought the long light hair of the " Teutones " and made wigs of it.

But to return to the Goths ; during the year in which the Romans were praying for peace, they built a fleet of boats upon the Black sea, and for some years ravaged the coast of Greece, devastated Troy, destroyed the temple of Diana at Ephesus, and threatened Italy. Gallienus now held the imperial office and roused his people against these barbarians, driving them away. But they only wanted to equip themselves more strongly and in 269 A.D., they started out in formidable numbers with a vast armament and made a halt at Thessalonica.

The Emperor Claudius was a most able general, and in three mighty battles he defeated their vast host of 300,000

people and sunk or captured their fleet ; the survivors fled, and amid the mountain passes of the land they had come to destroy perished of starvation. Aurelian, who wore the Imperial purple after Claudius, in 272, ceded the great province of Dacia to the remainder of this people, and for fifty years they were tolerably quiet. Now they began to be known as two separate races, namely, the Ostrogoths, living upon the shores of the Black sea, and the Visigoths who dwelt upon the banks of the Danube and in Dacia. When the Huns came down " like the wolf on the fold," threatening even the fierce Goths with extinction, 200,000 of them were allowed by Valens to settle in Moesia and were afterward known as the Moesia-Goths. That the Romans were deeply wrong in their treatment of these rude nations may plainly be seen. When the Moesia-Goths outgrew their territory and their lands could not furnish them sufficient food, so that they were starving, the Roman rulers bartered with them giving " ten pounds of dog's flesh " for a child to be used as a slave. And once a Gothic prince was invited to visit the Romans, and while eating they fell upon him and his followers, and would have murdered them had they not bravely defended themselves. This afterward led to a war when the Emperor Valens, being defeated and wounded, concealed himself in a hut, and the Goths not knowing this, set fire to a group of such buildings and the Emperor was burned to death, 378 A.D.

German histories call the Goths " the noblest and most civilized of German tribes." They early adopted Christianity, and their bishop, Ulphilas, translated the Bible into their language, and their feelings and manners were much softened by his ministrations ; they engaged in agriculture and advanced in civilization.

One name that becomes especially famous among the Visigoths was that of Alaric, a king whose name appears in the historic annals of the fourth century. Angry at having been denied the com-

mand of the army of the Eastern Empire, he invaded Greece. Athens saved herself by ransom; the Emperor Arcadius frightened by their ravages, hoping to win their friendship, appointed Alaric governor of Illyria. Invading Holy Land in 402 he was bought to leave the country by a promise of 4,000 pounds of gold. Not receiving the sum agreed, he invaded Rome, and only departed upon increased promises of increased sums of gold and silver.

Whether he was not paid all of this ransom, although the people melted all their ornaments and silver from the temples to do so, or whether he broke faith, is not told us, but he seized upon Rome, in 410, and his soldiers were allowed to pillage the city for six days. Their only restriction being, that churches and religious institutions should not be dishonored. From Rome he went to Sicily, but a storm destroyed his fleet and a few months later Alaric died. His people buried him, fully armed, with his war-horse, beneath the bed of a river, and put to death the captives who had assisted them, in order that his burial-place should not be dishonored by their foes. All Italy rejoiced at his death, and Rome celebrated the event with great festivities; yet Alaric was less fierce than his followers and wished to preserve the monuments and magnificent buildings of the "Holy City."

Among his successors, Wallia made the most conquests, and unfurled his royal banners over the greater part of Southern Gaul (now France) and Spain.

King Euric, the fourth chieftain after Wallia enlarged their dominions and made a regular code of laws for his people, encouraging all the arts of civilized life, as known at that time, but the Visigoths had lived their day almost to its close. Their rule was soon confined to Spain. Their nation was preserved until 711, then came the Saracen, and the last Visigothic king, Rodridgo, fell fighting for his kingdom on the battle-field of Xeres de la Frontera.

The Ostrogoths, meantime had desired the Emperor Valens, to permit them to settle in Roman territory, but their request had been denied, hence they became enemies of Rome and kept up almost continued warfare. Theodoric, their most noted sovereign, after years of battles reigned as Emperor of Italy, until his death in 525. His Ostrogothic kingdom besides Italy, included the lands between the Rhone and the Danube. After the death of Theodoric, the Emperor Justinian tried to regain Italy for the Eastern Empire, which had as its imperial city, Constantinople. The struggle continued some years; at length the King, Teias, was slain and his head born in triumph upon a spear. The Ostrogoths, now scattered as a nation, were absorbed in the crowd of tribes that had come to find homes in the northern Roman territory.

Somewhere about the year 375, while the Emperor Valens, reigned at Constantinople, over the Eastern empire, and his nephew ruled the Western empire, a new, savage tribe, of Asiatic origin allied to the Tartars, broke into Europe, sweeping forward like a wild human tempest. An ancient writer described them as so broad, thick and mis-shapen, that they appeared rather as two-legged monsters, or great logs hewn out roughly to support bridges. And further said that as deep cuts were made in their cheeks and the wounds cicatrized, to prevent the growth of beards, they were disfigured and beardless. They ate roots of wild plants, and half-raw flesh and lived wholly out of doors, clothed in skins of animals sown together.

Their rough boots would not permit their walking freely, hence they moved always upon horse-back. Their women lived in wagons and wove coarse linen cloth for their garments; they wandered continually, and had an insatiate passion for booty.

They are described as dark in complexion, with small, black, deep-set eyes. The Goths said "They were the pro-

geny of witches and infernal spirits, swift as lightning." They swept into battle with a horrible howl; they rushed forward, then back, now hither, now thither, with such inconceivable rapidity that they bewildered their foe and threw them into the utmost confusion. They were armed with the javelin and the sabre.

Their original home had been the wild, barren lands lying north of China. They were of an ancient family of nations, having been known as early as 200 B. C., when they made a successful invasion of China. This swarm of wild creatures, who might have been the originals that gave rise to the fables of the Centaurs, now rushed into the land of the Goths, and drove all before them. That brave old Gothic warrior, Hermanrich, now an hundred years old, seeing that he could not resist this horde, killed himself in wild despair. The Goths, driven from their houses, applied to the Emperor Valens, and he gave them Moesia, for which they promised to protect and defend his frontiers. For fifty years the Huns remained quiet pursuing pasturage and hunting, though making frequent plundering incursions into other territories, in a way quite similar to the Scottish Highlanders. Through intercourse with neighboring peoples their manners were much improved.

The most noted sovereign of the Huns was Attila, surnamed "Godegiesel, the scourge of God." The ferocious of all tribes, Vandals, Ostrogoths, and Franks, fought under his leadership. By his mental power and force of arms he extended his sovereignty from China to the land of the Gauls, and even invaded their domain in 451. At Chalons they met the combined forces of the Romans and the Visigoths. Theodoric the Gothic King fell, and the army, fired by revenge, swept from a height upon the enemy in the plain, and with frightful slaughter, routed their dreaded enemy.

Attila gathered all the combustible

material in his camp into one immense funeral pile, choosing rather to die by flame than to fall into the hands of the Romans. But they, wishing to preserve the "balance of power" among the nations allowed the Huns to go free. The following year Attila laid waste all northern Italy. The inhabitants fled to the fastnesses of the Apennines and Alps, and the Adriatic lagoons, where they laid the foundations of that "City of the sea," Venice. Rome would have fallen into their power, had not Pope Leo I. visited Attila and interceded for the Romans.

Attila was not the complete demon that he was represented by his enemies; he was kind to those whom he took under his protection, and in times of peace, sat in his judgment hall and meditated or judged calmly and dispassionately between all who sought him.

With splendor all around him he was plain and simple in life; to others he furnished gold and silver dishes, while he ate only from wood. While others laughed, jested and made merry, he was grave, and reflecting.

In 453 amid preparations for invading Italy he suddenly died. He was mourned widely by his people, who cut themselves with knives to show their despair. It is told that they placed him in a three-fold coffin, his body being put in a golden casket that was encased in one of silver, that again in one of iron, and in the midst of a wide plain, beneath a canopy of silk, he lay in state. Around him circled his horsemen, singing his valorous exploits. Then with his richest ornaments and arms, he whose name and fame are commemorated in German legends as Etzel, a ruler and not a foe, was buried so carefully that no sign of his burial-place was seen, and they who had laid him away were slain, that none should betray his last resting-place. But few years elapsed before the kingly power and their existence as a separate people passed away, and the head of Attila's son adorned a pike at Constantinople.

VERONIQUE PETIT.

A MAGIC LAMP.

THERE is a fabled story, that in a deep, subterranean cavern in China, there once lay hid a magic lamp, the possession of which would render the owner more powerful than any prince in the world, and when a genius led the boy Aladdin to find this concealed treasure, he was made supremely happy.

By simply rubbing this lamp genii and fairies were made to appear before him, ready to do his bidding, to grant any request he might make. Through its instrumentality were brought to him richest treasures of jewels; about him grew trees laden with large and beautiful fruits of adamants, glistening white pearls, red rubies, green emeralds, blue turquoises, purple amethysts and yellow sapphires. Love and beauty dwelt in his home, and his life was filled with happiness.

I had read this Arabian Night tale and was wishing that I could fall asleep and dream it all to be a reality, when very unexpectedly, a bright little fairy came hopping to my side and began whispering in my ear, and I will tell you some of the things it whispered. It said: "Oh you big, stupid creature, don't try to dream your life away, but wake up and make use of your own magic lamp. You want to say that you haven't one, but you have, and it is even more wonderful than the one owned by Aladdin. You need not feel vain over it, either, for I tell you that every human being can be the owner of just such a lamp; but the people don't know it, or if they do, they have no appreciation of the lamp's intrinsic worth. You would say that you never saw any such lamp; of course you never did, but you can feel it in your heart, for that's what it is, and if you would only keep its light shining, you could see most magical effects wrought upon everything around you.

Oh, you great, blind giant, if you would only keep your wondrous lamp glowing you need not be in such dismal

gloom; but you would see things in a clear and true light. You wonder that you never guessed there were such lamps; it is because so many keep them hidden under some filthy covering or other of earthly dross so they can't give out their light, and nobody knows that there is such a wondrous lamp hidden therein. But by a wise digging about this lamp could be searched out, rubbed up, and made to throw out such shining rays of sunny light that would illumine the whole being, and he would find himself enriched with finer gems than all the precious stones possessed by Aladdin. And from the person would go out a power of more value than that of earthly kings; for to him it would bring stores of richest jewels: rubies of esteem, emeralds of kindness, turquoises of trustfulness, amethysts of friendship, and pearls of love. The light from this lamp is like rays of sunshine; and as the flowers of earth open and bloom in joyous smiles of welcome to the sunbeams, so may the flowers of purity and truth in some soul, that has been so trampled upon by the heels of adversity and crime that not even one solitary green leaf of good can be discerned, be made to put forth renewed vigor and life when brought under the warming rays of some kindly heart; and soon fair leaves and beautiful sweet blossoms of genuine worthiness fill the atmosphere with fragrance. Sometimes these lamps are smothered beneath loads of folly and wickedness; deep sadness may cover them or dark despair, sorrow or morbid melancholy may encompass them; or the chilling winds of adversity, or the keen, cutting blasts of anger and hatred may blow out all the light within; or the light may seem turned to blackness under loads of worldly cares, ambition or avarice.

I am only a small fairy as you see, and my name is Conscience. I have a cousin named Duty, and if you will allow

us we will come some day and help you dig out your magic lamp. It is called Christian Cheerfulness and then the fairies Faith and Trust will come and live with you, and they will bring sparks of love, truth and wisdom wherewith to keep your lamp lighted; and fed by the oil of true goodness it will illuminate the whole path of life and help make clear the way to others; and in the great hereafter there will be one more shining light making glad the heavenly city.

"This lamp gleaming with brightness will radiate through every nerve and fibre of your being, lighting up the countenance; and 'a cheerful face doeth good like a medicine.' The rays of worth and goodness that emanate from such a heart's lamp will be a perpetual influence for good, helping to brighten, mould the character, and make better all upon whom they shine. If you will only have us fairies come and live with you; sometime we'll bring you a prism

to dissect the rays of light from your lamp, and you will see the spectrum to be composed of the most delightful colors."

While talking, this impertinent fairy had come out and stood right before me and spoke in so rapid a manner that I could not get a word of reply in edgewise. Now it seemed to stop for want of breath; but when I opened my mouth to make answer, as if fearful I might swallow it, the fairy nodded hastily and disappeared.

But I am going to call this strange little fairy back again to help search out my magic lamp, and then I shall insist upon the whole tribe of charming fairies cousins, uncles, aunts—all of them—to come and make their home with me and help keep my wonderful lamp shining with all possible brilliance; and then I shall have them show me all the beautiful colors in its spectrum.

"ERRO."

SHOULD SILVER BE DEMONETIZED?

A BIMETALLIST'S VIEW.

SHOULD silver be demonetized? Of course not. Why should it? Can any one tell? There is no proof that it shall be; much less that it should be. (I am speaking from a world, not from a national standpoint). Though there is a power "among ourselves" that may desire to work this unrighteousness, there is also a power in ourselves that, working in unison with the "power not ourselves that makes for righteousness," will thwart this evil design. Science, truth, and the right have become too strong for empiricism, error, and wrong. The reign of science has begun. Science and truth to the front; let the rest retire, with or without pension, only so that we may get rid of them. "Enlightened self-interest" even will carry us thus far.

So much by way of preface and as a ground for justifying consent to dis-

cuss the question at all. The other side assumes the affirmative. *Prima facie* the case is all one way. Silver has always been used as money. We might rest here until the plaintiff proves, or attempts to prove, his case, or "shows cause" why silver should be proscribed. It is understood that this is not a question between the bullionists and antibullionists, but between the monometallists and the bimetallists. The general and larger question of money is not involved, only this: So long as we use the specie-basis system, should we confine ourselves to one metal or use both, as we always have done? The bankers, the creditor class, the money mongers, attack silver. Why? The question answers itself upon a moment's reflection. Selfishness, self-interest, unenlightened self-interest, is what inspires them. Their argument is therefore one-sided, biassed, strained,

fictitious, unprofitable. Monopoly, monopolizability would decrease the quantity on the false pretense of increasing the quality. They catch at catchwords and resort to chop logic. "Double standard," ah ! what a lucky chance ! and they chuckle over it as a discovery of the vulnerable point in the heel of Achilles. This unfortunate ambiguity is their strong point. They catch at it as a *lapsus linguæ* (which it is) of their opponent. They rely not upon the merits of their cause, but upon taking advantage of a technicality, of the careless phraseology of the bimetallists, who, finding the phrase in use, inconsiderately adopted it, but are now abandoning it. Double standard ! cry the monometallists, how can there be two standards ? The idea is absurd ; therefore bimetallism is impossible. It does not stagger them that the bimetallists reply, that bimetallism has been already the practice, the fact, of the ages ; has always been not only a possibility but an actuality. But it is not upon facts that monometallists rely, and therefore facts do not affect them. They are like the jurymen, who, when he and the facts did not agree, said that it was "so much the worse for the facts."

By a play upon this phrase they sophistically glide from it into the other phrase of bimetallism, and thus attempt to make them appear as synonymous, so that, by cutting off the head of the one they may seem to cut off the head of the other. They also act like children in the matter, making "double standard" their "bug-a-boo" in the play. They play us a farce because they have nothing better to offer.

But bimetallism, of course, is not synonymous with double standard. It has no necessary connection with the idea, even, of a double standard. It means that the two metals act or serve together as a unit, much as the union of metals in the pendulum of a clock acts, the one compensating for the other in their respective expansion and contraction, and

so preserving the stability of the length of the pendulum itself. Or as two connected reservoirs of water which are kept level with each other, and are so far made to act as one by the connection or jointure, and together serve our wants. Bimetallism masses the two metals, and thus makes a broader, sounder and safer foundation for the paper or fiduciary currency, in the proportion of two to one, and, of course, compared with monometallism, it makes double the volume of metal money itself. Monometallism, therefore, means contraction, which produces spoliation which involves the exploitation of the many by the few, which means the money-mongers, the gold-bugs, as vampires, sucking away the vitality of industry, the life blood of the laboring masses. It means retrogression, not progression.

Mankind is a solidarity ; the interests of the whole best serve the interests of all its parts. What makes the "dangerous classes" of either of the upper or lower orders ? Who are the dangerous classes ? First, those who feel themselves to be above, different and separate from the mass of mankind, and act accordingly, regarding themselves as the elect, who ought to be the privileged class and lords of the race, treating the "remnant" thereof as their tools, serfs, lackeys and victims.

Second, those that are made to feel that they have not a common interest in the affairs of the world ; have not a common interest in their mother earth with the rest of her children ; have not a joint interest in the earth as an inheritance in common of the whole race ; have not a joint interest in society as an organism of which they are a part, of which they are members ; and have been made to feel that in all the Christian world there is no place yet for the high philosophy of Christ. Monometallism leads to these reflections.

Bimetallism tends to the reverse of all this. It means expansion, progress, growth, all around. It would equalize

the commodity price of silver with its money price, and so raise it to par with gold at the present ratio of the world, and keep it there. (For the purposes of this article, by bi-metallism is meant international bi-metallism.) And by thus raising silver to par, and keeping it there, so great a degree of stability in the value of money would be realized that it would go a long way in preventing excess of fluctuation in values, and thus the greater stability to industry itself would be secured, and at once revived—revived all over the world. And this would check, if not stop, the excessive, rapid and dangerous divergence of classes now going on, and modify, if not heal or soothe, the rancor between the two orders of the dangerous classes, and also modify, if not put a stop to the power, and perhaps the disposition for evil of each, by showing the one a better way to success, and the other a better chance of securing a rightful share in the common inheritance, the results of the world's industry, and in the results of their own labor. It would change the one from legalized wrong-doers and the other from unlegalized wrong-doers into dutiful, public-spirited and good citizens.

Germany, inflated with martial pride by a great and recent conquest, and made, perhaps, a little purse-proud by the great war indemnity wrung from France, and foolishly believing that Eng'land's mono-metallism had largely contributed to her great commercial success, sought to imitate her in demonetizing silver, and did so in 1873. This attack upon silver began and largely contributed to its subsequent depreciation, and this depreciation of silver caused the appreciation of gold, which in its turn caused the fall in prices, which brought about the consequent falling off in business and stagnation in industry all over the world, and in that condition of stagnation we have been ever since; and we may remain in it until there is an international agreement to rehabilitate silver on terms of a given

ratio—say 15 1-2 to 1—by reopening the mints of all the contracting parties for the coining of silver upon the same terms on which they coin gold, and making it, as well as gold, unlimited legal tender. But Germany has since been convinced of her mistake. The International Monetary Conference, held in 1867 in Paris, which sought to secure uniformity in money, made a great blunder in concluding that this object could best be secured by resorting to gold mono-metallism. This blunder was soon discovered, admitted and repented of. The two subsequent similar conferences aimed at stability in the value of money. And though they did not reach an agreement as to the method of securing this end, they made as much progress toward it as could have been reasonably expected, and there has since been large and sure growth in this direction, through our own and other international bi-metallic movements and agitation, and through the writings of the new and freer school of economists, better and later (and better because later) informed than the old school. The latter seems to have a sort of flesh-pot, Esau-like attachment to gold mono-metallism.

The rise and fall of nations have had much to do with the expansion and contraction of money. Rome grew and flourished while tribute money flowed into her lap. Rome declined and fell when it flowed out again for foreign luxuries. The world has advanced in civilization, or has fallen back in barbarism, according as there has been a sufficiency or deficiency of money. Progression and retrogression are companions to enough and not enough money.

W. M. BOUCHER.

AN AMERICAN BIDDER. It is said by the Cincinnati *Enquirer* that about four miles east of Owingsville, Ky., a man lives who is a prodigy. This man is Reuben Fields, and he has but one developed faculty, and this seems to take entire possession of him, driving all other

thoughts from his mind. In early infancy he was apparently much as other children, but in early youth he developed a wonderful precocity for mathematics, even then, solving difficult problems with apparent ease and with but little study. This became a mania with him and grew as he grew, to the exclusion of all other branches of thought, until finally, without knowing a single figure or letter of the alphabet, he became master of the science of mathematics. He has been tested by scientific men of this profession, and the answers to the most difficult problems that they have propounded appear to be at his tongue's end, the correct solution being given in an instant.

As an instance of his remarkable powers, he has been known to keep more than a dozen clerks busy in taking invoice of a stock of goods. Indeed, his knowledge and application of the science of mathematics far exceed anything that the most scientific men are able to comprehend. Another phenomenal characteristic of this man is that he can tell the time to a second, either day or night.

Awakened from the soundest sleep he can tell you, without hesitation, precisely what time it is. What Blind Tom is to music, Reuben Fields is to mathematics; and, like that illustrious imbecile, this one branch absorbs his entire mental capacity.

Another peculiarity of Fields is his utter fearlessness of snakes. In his childhood he manifested a fondness for these reptiles, and made them his playthings, and, strange to say, he was never bitten, though he handled with great carelessness and freedom the most poisonous species. He is very superstitious, and believes his extraordinary powers direct gifts from his Creator, and says that were he to reveal the secrets, or use them for the purpose of gaining more than the necessities of life, he would expect to be deprived of them immediately. He has more than once refused offers of handsome salaries. His parents died some time ago, since which time Fields has been roving round among his kindred, staying with each, a greater or less length of time, according to the nearness of kinship.

THE PICTURED ROCKS OF IOWA.

PRAIRIE du Chien, Wis., is a town containing between 3000 and 4000 inhabitants. It is situated on the Mississippi River, at the mouth of the Wisconsin River. A few miles back is a line of bluffs.

We arrived in the above town one rainy day last summer, with the intention to ramble a little in the vicinity. A few days later a party of six planned a trip to the Pictured Rocks, which are on the Iowa side of the river, a few miles below the town of McGregor.

We went in a row-boat, and Uncle Longfellow (who had an appropriate name, being 6 ft. tall) agreed to do the rowing. The river on the Prairie du Chien side is full of islands. We went down about two miles among these islands. An artist would have found

plenty of interesting points to keep his pencil busy along the way. Now would appear a group of trees with water lillies in bloom at their feet; then some scraggy monarch, who had seen the river frozen scores of times, but was full of artistic beauty. We then crossed to the Iowa side. The Pictured Rocks are situated at the end of a gorge between two bluffs. On arriving at the Pictured Rocks we had a really beautiful scene spread before us. The side of one bluff is covered with trees, flowers innumerable, and luxuriant ferns waving in the light breeze. On the other, we have the Pictured Rocks reaching to about twenty feet in height, their surface marked with every shade of red in ripples, dots, clouds and fantastic shapes, and mottlings of white and

yellow. At our feet a brook trickled down. The trees were full of birds singing with all their might. It would seem as though they were rejoicing at the beautiful scene before them. The words of the poet, Bryant, might well express our feelings at the time :

"My heart is awed within me when I think
Of the great miracle which still goes on
In silence round me—the perpetual work
Of Thy great creation, finished yet renewed
Forever."

The Pictured Rocks are of sandstone, which can be easily crushed in the hand when wet. Here the botanist and geologist find a good field.

Climbing up a little higher on the bluff we found the brook dropping over a ledge of rock, forming a miniature Minnehaha falls. We climbed also to the top of the other bluff, which is called Point-Look-out, said to be 500 ft. high.

A splendid view of the surrounding country is here obtained. On one hand is the town with the spires of its churches rising above the houses thickly sprinkled between. On the other are fertile farms, and in the distance the other line of bluffs, with the river winding through.

JAMES THORNE.

THE TWO ANGELS.

FROM THE GERMAN.

Darkness falls. The voice of day is dying,
Twilight slowly creeps across the sky.
Lo, two brother angels earthward flying—
Sleep and Death—with errands from on high.

One of them, in heavenly beauty glowing,
Scatters grains of slumber far and wide,
Which the rising breezes gently blowing
Waft from house to house on every side.

Soon the weary all are soundly sleeping;
Pain at last the bed of sickness flies,
Sweet repose has hushed the mourner's weeping;
Kind oblivion closed his tearful eyes.

Now the aged, weary, care-o'erladen,
And the infant on his mother's arm,
And the ruddy youth and blooming maiden
Sweetly rest without a thought of harm.
"When they waken, brother, they will gladly
Praise me for the good which I bestow."
"None to me," the other answered sadly,
"Thanks will render. I am called their foe."

"Nay, for all the good will praise thee, brother,
When unto a brighter life they rise,
When their blessed spirits meet each other
In the shining fields of Paradise." H. A. S.

A TIRED-OUT PEOPLE.

DAY after day one meets weary-looking men and women, with faces so wan and haggard that pity is the only instinct, and not till we have said "Poor things, how badly they look!" are we ready to question, why are they so?

Demands of business, exacting climate, over-work and general pressure in every direction has heretofore satisfied us as an answer, and in this as in a thousand other matters we have folded our hands quietly, and been content with merely wondering if any remedy lay within our power. In the meantime however, an

enthusiast has been at work. Thank Heaven we are not yet too tired out to produce them, now and then, and that some of them will let Protoplasm alone and condescend to investigate the plasmas of every-day living. He claims to have discovered a new substance in the blood—a curious something called "Fatigue material," and generated by over-action of muscles and nerves. This enemy to sound growth and repair of wasted tissue can only be destroyed by the action of the oxygen of the blood during sleep, and it is asserted that our national ner-

vousness and restlessness comes from the fact that we do not sleep enough to insure the destruction of this ever-feeding vampire. Thus far the statement can hardly be said to have been scientifically formulated, but whether true or not, the fact remains that we take only about half the sleep actually required.

That our ancestors in some points were far more robust than the present generation, came in great part from the fact that only the rarest occasions of business or pleasure kept them out of bed after midnight. Now, young men and maidens, old men and children sin alike. Nine o'clock may be the children's hour, but what average American mother does order her fifteen-year-old son or daughter to bed at that time? A shriek of remonstrance goes up. School-girls must study. At least they call it study, but often the novel shows its seductive pages behind the grammar or dictionary. Parties, theatres, concerts—all make their demands, and every call is heeded save that of poor Sleep, whose first sweet bloom fades after midnight, as she flits away among the melancholy ghosts, with shrouded head and hollow voice crying: "Custom hath murdered Sleep."

Tired mothers and house-keepers who seek to meet all the demands of this most exacting time deserve only pity, and yet a shade of reproach must mingle with it, for is not the remedy nearer than they think? A little less ruffling and tucking, fewer pies and cakes, fewer tidies and specimens of bead-work and all other works. It is these things that help to kill the nursing babies, and a thousand times more surely than marasmus and scarlet fever and other disorders whose name is legion, but should be only sleeplessness.

Like the young man, the significant odor about whom was apologized for on the ground that he "inherited the smell of whisky from his father and couldn't help it," so the present generation inherits chronic fatigue and is not responsible for it. But for the coming one they

are. The climate *is* exacting. The demands on even, quiet, ordinary living are enormous; its temptations equally so. Tired nerves are spurred to activity by sensational methods. Life becomes false, unnatural, full of vain strife and hopeless hunger. Then follows some great crime, and men wonder. Daily they are growing more common. There is faithlessness in high places, cunning and trickery in the soundest-seeming institution, unnamable crimes where one looked for honor and faith. The poison is working more deadly, as it is more subtle than anything more tangible. If sound nerves and bodily fibre are eaten up by its action, how is high purpose or faith to remain unharmed? There is not a mother in the land who should not take this to heart, and with the gospel of cleanliness and simple living preach also that of sleep.

Emergencies demand its sacrifice at times, and how can one make the offering with no reserve force to draw upon? The present time requires later hours, but let the need of pleasure or work be the exception and not the rule of living. Nature will have her revenges, and the time comes when poisoned blood and nerves sink the poor body in a deeper slumber than human power can bring. Well, if the Master's voice, "Sleep on now and take your rest," does not rouse one to the bitter knowledge that the body has been betrayed into the hands of its enemies and there is no place left for repentance, seek it with bitter tears as we may.

C. W.



A TIDY, neatly dressed workman is generally careful, neat and quick about his work, while a slovenly dressed man is too apt to be careless or idle; or smoke in the shop when the employer is absent. In Vienna, at the Exposition of 1873, twelve to twenty cents more a day was given to workmen who wore leather shoes than to those who wore wooden clogs or went barefoot.



NEW THEORIES OF MUSCLE ACTION AND NUTRITION.

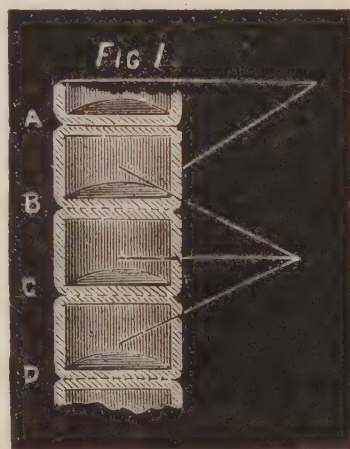
ABOUT two hundred years ago, Prof. Giovanni Alfonso Borelli, a mathematician and physiologist of Naples, Italy, proposed what seems to have been the first theory ever advanced in explanation of the construction and action of the muscular elements. To my mind his views seem obviously incorrect, and yet Prof. Marey of the College of France says: "We do not reason otherwise now that histology has shown us in a muscle a bundle of fibres whose actions are combined like the chains suggested by the Naples professor." (Animal Mechanics, page 63.) Professor Marey's book was published in this country eleven years ago, and, notwithstanding the wonderful progress that has since been made in the various branches of medical science, it appears that nothing has yet been offered on this subject which can be accepted as a correct, or even a more satisfactory solution of this problem.

Being deeply impressed with the importance of correct information on this subject during the preparation of a lecture embodying some important discoveries in Health Science, I at once instituted a careful examination of the phenomena connected with vital activity, and succeeded in obtaining results which are, to me, of a most gratifying character. I have thus been enabled to offer

in the fullest confidence of their truthfulness, not only the following theories concerning the mechanism of the muscular elements, and the *modus operandi* of their action, but also what seem to be valuable hints relative to the source and development of nervous energy.

OF THE VOLUNTARY MUSCLES.

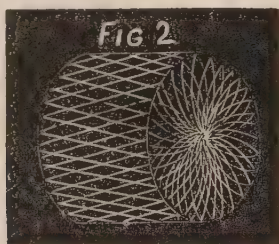
The elements and the mechanical arrangement of a primitive muscular fibre of this kind, as they now appear to my mind, are well represented in longitudinal section in Fig. 1.



The sarcolemma, or exterior walls of the sarcous elements shown; also the broad striæ or nutrient cavities of the elements. Points of attachment or septa, A, B, C, D.

That part which is here termed the sarcolemma, is not a fibrillar sheath as it seems to be, but is in reality an aggregation of the exterior walls of a series of sarcous elements, joined together end to

end. The point of juncture is indicated by the dotted lines at A, B, C and D, of the foregoing figure. The sarcous elements are simply hollow, cyclindrical chambers, provided for the storage of nutrient materials, and these recesses are made prominent to view by their contents appearing as broad, dark, transverse striæ. Their walls are formed of reticulated, non-elastic filaments, the meshes of which are most likely covered in with a film of elastic membrane. These filaments have a common point of origin in the center of one end of the element, and a common point of insertion, as it were, in the opposite end of the same, as shown in Fig. 2.



During muscular repose or relaxation, this network is fully extended longitudinally, so that its meshes appear to be almost obliterated on account of the close proximity of their lateral angles. Each element so constructed is firmly attached by the full extent of its flattened polar surface to the corresponding surface of the next member of the series composing the fibril—the ends so attached constituting as it were, a transverse partition in a tube, as shown at A, B, C and D, Fig. 1.

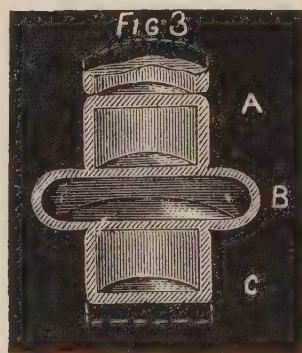
Two elements thus attached may be fitly represented by two cylindrical pill boxes pasted together, end to end, the two heads jointly representing the partitions or septa just described.

A slight depression exists at the juncture of each pair of elements, the optical effect of which no doubt led Krause into the error of supposing it to be a transverse membrane. This is what is called by anatomists “the membrane of Krause.” The light band observed on each side of the shaded line, marking this depression, is produced by transmitted

light appearing through the disk-like poles of adjoining elements.

A number of sarcous elements joined together as just described, constitute a muscular fibril, which is practically a long tube divided into minute chambers by septa of non-elastic filaments radiating from the center of the septa, as already stated, and thus forbidding their diametrical expansion.

From a careful study of this mode of construction, it may be clearly seen that on account of the peculiar arrangement of the network of each element, its exterior surface is open to free lateral expansion, while its longitudinal extension is an impossibility. Since the external surface of each element is practically a straight line which cannot be extended, and since a straight line is the shortest distance between two points, it is evident that the lateral expansion of such a surface must cause it to bulge outward, thus forcing the septa into closer proximity, and effecting the contraction of the fibril, of which it forms a part. This fact is made fully apparent by examination of Fig. 3, for the longitudinal section of a sarcous element of this variety exhibits a rectangular outline, as shown at A and C in this figure.



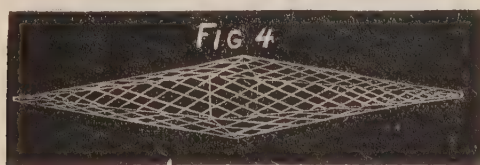
The dotted lines at each end of this figure exhibit the amount of contraction effected by the expansion of the middle elements.

This fact may also be exemplified by a flexible wire formed into a square and the ends firmly soldered together. By forcing opposite sides of this outward the other two sides will be made to approach each other.

Besides these methods of demonstration I have devised what might be termed a performing manakin which completely and beautifully verifies the rationale and feasibility of the mechanism now suggested.

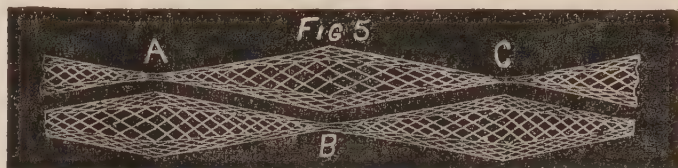
OF MUSCLES OF ORGANIC LIFE.

It is very evident that sarcoous elements constructed on the plan now submitted, are eminently suited to the wide range of force and the rapidity of action required of the voluntary muscles and of those of the heart. But it is reasonable to suppose that elements of a different form would be better calculated to produce the very dissimilar character of movements required in the performance of the functions of animal life. And we find that conclusions suggested by rational processes, are fully corroborated by the revelations of the microscope, for by its aid it has been determined that all muscles of this class are composed of elements, the greater diameter of which is about the center, each end tapering down, like a spindle, to a point. These are said by Professor Gray to be polyhedral, a description which, by the way, is entirely too indefinite to be of much value. For obvious reasons a transverse section of an element of this class must, as a rule, present some one of three forms: a triangle, a quadrangle, or a hexagon. Could a complete transverse section be made of a thing so pliable and of such diminutive proportions, without changing its outline, and were this examined by a microscope of sufficient power, it would doubtless be found that, with certain necessary exceptions, it would present a hexagonal outline, and as a whole twelve sides or facets as shown considerably expanded in Fig. 4.



Elements of this form would necessarily overlap each other, above, below, and

laterally; and viewed at a right angle to their plane would collectively appear somewhat like Fig. 5.



In this figure each fibril is removed from contact with its fellow, so that a clearer view may be obtained. A long, tubular net, with a film of gum-elastic covering in its meshes, and then constricted by ligatures as at A, B and C, Fig. 5, would give the best illustration of the essential points of construction.

Fibrils of this kind are also striated, but their striations are longitudinal. From this fact, and the form already suggested, we are led to conclude that elements of this class are composed of seven compartments—one central with six others arranged around it—their striæ being due to their nutrient contents appearing through their translucent walls. A transverse section would present the arrangement of these compartments as shown in Fig. 6.



The members of this compound element are no doubt separated from each other by a network arranged in harmony with that described as the exterior wall or investment of the entire element. As in the former variety, so in this—they are free to expand in a transverse direction, but cannot be further extended longitudinally. The inflation of such an element must therefore increase its diameter, at the expense of its length, and thus produce contraction as certainly as in that form of element first described. It seems plain enough that their elongated, tapering form, with this overlapping ar-

rangement, are structural points, eminently fitting them for the production of the peristaltic motion of the alimentary tract, for the movements of the visceral organs, and of the walls of all of the various members of the vascular system.

MUSCULAR CONTRACTION—HOW PRODUCED.

Of course the foregoing theories, however true to mechanical principles, would be valueless if the means for producing the expansion therein suggested did not exist in the bodies of animated beings. I now, therefore advance the following theory, as complimentary to the foregoing, and in the fullest confidence that it will be accepted as adequate and satisfactory on this point.

The opacity which gives rise to the striæ noticed in the fibrils of both varieties is due, as already stated, to nutrient materials stored away ready for use within the recesses of the sarcous elements, as seen through their pellucid walls. These nutrient matters are derived wholly from the peptonized albumen of the blood, and are therefore of organic origin. They are the bearers of the force needed, and manifested in all vital operations. The contents of the sarcous elements are therefore of a very perishable nature, and being also laden with oxygen—probably as a mechanical admixture—they necessarily occupy a position of such delicate instability that only a very slight nervous impulse would be required to cause their chemical union with the oxygen. Such an impulse must therefore be followed by the oxidation of the contents of every element penetrated by it. The most prominent result of this chemical process is the evolution of carbonic acid gas,* while expansion of the sarcous element is a necessary concomitant.

Since it is an established principle that motion is determined in the direction of

the least resistance, and since the sarcous walls can not be extended, and yet are open to lateral expansion, it is evident that the gas evolved must necessarily produce the bulging effect and the consequent contraction illustrated in Fig. 3. Carbonic acid gas and all other products of this vito-chemical process being freely soluble in the vital current are quickly absorbed into the blood of the contiguous vessels, and relaxation of the muscle thereby effected. While these effete matters are being discharged from the elemental cells by osmosis, these recesses are simultaneously replenished with fresh supplies of nutriment by the complement of the osmotic process; thus consummating the important process of nutrition, which alone can fit them for further action.

It may now be clearly seen that when food is once stored in the sarcous elements it is properly situated for the production of mechanical results—there being, as it were, a proper fulcrum upon which the force may be converted into motion. And it is equally clear that when thus situated, it is under such complete subjection to the nervous system, that through the mandates of the will, or of the vital instincts, it may be compelled at any moment to yield its force in the simultaneous production of animal heat, muscular contraction and motion. Be it therefore ever remembered that force liberated from materials by their oxidation, effected while remaining in the blood, is a complete waste for the want of a basis of action, and that even the heat, evolved in this way is not animal heat, but on the contrary is essentially that of fever.

THE SOURCE AND EVOLUTION OF NERVOUS ENERGY.

It will be readily admitted that the albumen elaborated from the food is the immediate source of muscular power. In such an admission the fact is virtually conceded that a *material substance* is the vehicle for the conveyance of an *immaterial force* to the muscular department or animal organisms. And I can

*I use the old name as it will be better understood by the non-professional readers of the article.

conceive of no reason which forbids the assumption that the *immaterial nerve force* is likewise of *material origin*, and that it is also produced by the metamorphosis of albuminous matter. And such an assumption is apparently well supported by the fact that albumen abounds also in all the organs of tactile sensibility, in all the nerve cells, in the axis cylinder of the nerves, in the ganglia, in the cerebro-spinal axis, in the cerebellum and in the gray matter of the cerebral convolutions. It is a fact of special significance that every Pacinian body, or other nerve ending, whether central or peripheral, is literally stuffed with albuminous matter inclosed in an insulating capsule which is continuous with the neurilemma, or nerve sheath. In these and in all other situations in which it is found in the nervous system, it is divided into granular particles which appear of exceeding fineness, even when viewed by the most powerful microscope. It may therefore be legitimately inferred that in this department it is much more intimately incorporated with oxygen than that which is stored in the recesses of the muscular system. It may be consequently further assumed that its instability is here so delicately adjusted that the slightest stroke of a Pacinian body, or other nerve terminus, would create sufficient friction to secure the oxidation of a portion of its nutrient matter, and the evolution of a nerve current of ample power to excite a similar action in the cells which make up the cineritious portion of the brain, and thus direct attention to the part touched. Carrying this thought a step farther we may also conclude that if a stroke be received of sufficient gravity to jeopardize vital interests, the law of self-preservation will be called into action, and a special impulse—either instinctive or volitional—will be evolved from the nutrient cells of the appropriate nerve center, instigating the recoil of the affected member. Whether the experience following a disturbance of peripheral termini shall be pleasur-

able or painful will depend somewhat upon the intensity of the force producing the primary excitation, but principally upon the amount of nutrient matter consumed in the cerebral cells.

The nervous impulses on which the functions of organic life are suspended, are no doubt quite feeble at their origin, and they are doubtless maintained at an even degree of intensity, or reinforced, as necessity may require, by the ganglionic relays which occur at short intervals throughout the sympathetic system. Here the oxidizing process closely approaches spontaneity; for the otherwise imperceptible demands of the system are sufficient for the maintenance of perpetual action, unless interrupted by morbid influences.

It is entirely reasonable to suppose that excessive cerebral circulation would be followed by hypernutrition of the brain, or in other words, by inordinate distention of its nutrient cells with albuminous matter. Considering now the unstable character of this highly oxygenized matter, we may safely conclude that combustion may be induced by the irritation which must ensue from the crowding of nutrient matter into cells encased, as these are, within unyielding walls. In fact it would seem that the combustion is Nature's only alternative in relieving the pressure thus induced; for it must be remembered that it is now no longer floating in the blood, and therefore can not be conveyed by it to other regions. There are, indeed, the very best of reasons for believing that insomnia and various forms of insanity are due to oxidation excited in this way. It is well known that cold extremities and a heated brain are the invariable concomitants of these morbid conditions; thus indicating that the cerebral "fires" are burning with undue vehemence, while remote regions are bathed in coldness and growing weak from deficient nutrition.

From the views, now presented, it will appear that I do not accept the prevail-

ing notion, that the tissues of the nerves and muscles are actually consumed during their activity ; but that, on the contrary, I regard the nerve cells and the sarcous elements as the working parts of the vital machine, the integrity of which must be preserved, and whose functions are analogous, on the one hand, to the cells of a galvanic battery, and on the other to the cylinder and piston of a steam engine. I do not hesitate to affirm that those parts are never consumed except by morbid processes, and that they are not ordinarily worn out or consumed even at death, for life's closing scene is with far greater frequency due to obstruction of the vital machinery than to destruction of its working parts. In conclusion I must say, in justice to myself, that I am not in any proper sense of the word a microscopist. Neither am I a practical histologist. In arriving at these conclusions I have therefore relied entirely upon rational processes in connection with the testimony of authors. My views, however, seem to be supported by a vast array of facts and principles of insuperable relevancy, but want of time and space forbids their presentation in this paper.

I publish these thoughts for the purpose of enlisting the scientific world in a

careful and, I trust, unbiassed examination, that they may be approved or rejected as truth shall demand. The value of any theory depends upon its capability of explaining the facts which lie within its province, and I believe that these or some slight modification of them will be found capable of fulfilling this requirement. Notwithstanding that they seem dear to me at present, I must disclaim any interest in them beyond the truths they may express. It has never been my habit or desire to shield myself so impenetrably in the belief of anything that light can not reach me ; nor have I ever knowingly permitted reverence for the views of others, however exalted, to lead me beyond the confines of reason, nor to deter me from investigating for myself.

I trust that all others will be equally independent ; for I am fully aware that these views are in direct contravention of several theories which have long been regarded as fully established, I especially request all reviewers* to send me a copy of their productions, whether favorable or otherwise.

THOMAS POWELL, M. D.

*Exchanges desiring to copy this article can obtain the cuts by applying to the author, at Paola, Kansas.

THE FAITH CURES.

THEIR PHYSIOLOGICAL BASIS.

MUCH interest has been excited by the numerous remarkable cures which have been effected, during the past few years by the so-called faith cure. That remarkable cures have been effected, no candid person can deny. Many of these cures have been permanent, although a portion have relapsed to their former state. These remarkable cures are variously regarded by the public. Some persons regard them with incredulity, and are disposed to disparage their usefulness, by trying to show that there really was not very much the matter with those who claim to have been

cured. However that may be, it is certain that enough ailed them to keep them bed-ridden for years, and it certainly was remarkable that they were enabled to leave their beds. Others regard their cures as miraculous, and altogether beyond the sphere of human agency. There are very good reasons for not accepting either of their extreme views. It is believed that these remarkable cures may be explained upon physiological principles.

FAITH MORE POTENT THAN DRUGS.

Faith is a powerful curative agent and deserves to rank along with the most

powerful drugs. Even the efficacy of drugs, is due in part to the faith which the patient exercises at the same time that he takes them. The belief that a certain effect is to follow, as the effect of taking a drug, is promotive of the the drug. I noticed the expectation of a certain effect to follow the taking of a certain substance in medicine sufficient to produce this effect, although some inert substance had been taken instead. An instance of this kind is given by Dr. Lisk, a French physician, who had a hypochondriacal patient who believed himself the victim of obstinate constipation, although in point of fact his bowels were regular. Of purgatives he had taken every form, but he affirmed, without any result. Dr. Lisk refused to give him any medicine, and was in consequence incessantly importuned, and even abused by his patient. At last wearied out, he professed to yield to his solicitations, and told him he was about to give him the most violent purgative he knew and that it would certainly render him very ill. With the greatest delight he obeyed the doctor's orders to take five pills, made of bread crumbs, an interval of a quarter of an hour being allowed between each. After the third dose the patient was well purged, and within seven hours the bowels were acted upon more than twenty times. He was jubilant at the success of the pills, but was almost in a state of collapse with the attack. From that time he began to recover from his delusional insanity.

The British and Foreign *Medical Review* of January, 1847, gives the following as communicated by a naval surgeon: A very intelligent officer had suffered for some years from violent attacks of cramp in the stomach. He had tried all the remedies usually recommended for the relief of this distressing affection, and for a short period prior to coming under treatment the trisnitrate of bismuth had been attended with the best results. The attacks came on about once in three weeks, or from that to a month, unless some un-

usual exposure brought them on more frequently. As bismuth had been so useful, it of course, was continued; but notwithstanding that it was increased to the largest dose that its poisonous qualities would justify, it soon lost its effect; sedatives were again appealed to, but the relief afforded by them was only partial, while their effect on the general system was evidently very prejudicial. On one occasion, while greatly suffering from the effect of some preparation of opium, given for the relief of the spasms, he was told that on the next attack he would be put under a medicine which was generally believed to be most effective, but which was rarely used on account of its dangerous qualities, but notwithstanding these it should be tried, provided he gave his assent. This he did willingly. Accordingly on the first attack after this a powder containing four grains of *ground biscuit* was administered every seven minutes, while the greatest anxiety was expressed (within the hearing of the patient), lest too much should be given. The first dose caused an entire cessation of pain. Half-drachm doses of bismuth had never procured the same relief in less than three hours. For four successive times did the same kind of an attack recur, and four times was met by the same remedy and with like success. After this my patient was ordered to join another ship on a different station.

The same surgeon gives another case in which constipation was relieved in a similar way: A seaman had suffered from four successive attacks of constipation. So far as could be detected there was no organic disease to account for its occurrence. The symptoms were such as usually follow protracted constipation of the bowels; and on four occasions large and repeated doses of the strongest purgatives (croton oil included) powerful enemata, cold affusions or hot baths had all been required to be persevered in to procure relief. On the fifth attack he was put under two grains of bread pills every seven minutes; much

anxiety being of course expressed to guard against any over-dose, as well as to watch the effect of what was then given. Within two hours he became sick (one of the symptoms expected from the medicine) and his bowels were freely open almost immediately after; nor did they become again constipated, so far as I am aware.

In these cases it will be observed that the administration of inert substances like bread crumbs in the form of pills or powders, joined with the expectation on the part of the patient of powerful effects to follow, were attended with more powerful effects than the most powerful drugs had been able to produce. If these patients could have been made to expect with the same degree of certainty, these results to follow their exercise of faith, then the same results would have followed without the use of the bread crumbs, and these would have been simple faith cures, as such they were virtually.

MAGNETIC DISKS OR TRACTORS.

Magnetic belts, magnetic disks, or magnetic tractors, have enjoyed quite a reputation as curative agents. The results obtained by the use of these are merely another form of the faith cure. Magnetism or galvanism has nothing to do with the results. At the time that the metallic tractors of Perkins excited so much attention on account of their alleged curative effects Drs. Hygarth and Falconer of Bath, England, selected certain patients in the general hospital for experiment, employing two wooden tractors of nearly the same shape as those used by Perkins, and painted so as to resemble them in color. "The cases" says Dr. Tuke "were those of chronic rheumatism in the ankle, knee, waist and hip. One attributed his pain to the gout, and with the exception of the hip case the joints were swollen and all had been ill for several months. Of five patients, all except one assured us that their pains were relieved, and three of them that

they were much benefited by the first application of the remedy. One felt his knees warmer, and he could walk much better, as he showed us with satisfaction. One was easier for nine hours till he went to bed, when the pain returned. One had tingling sensations for two hours. The wooden tractors were drawn over the skin, so as to touch it in the slightest manner. Such is the wonderful force of the imagination."

Dr. Alderson, of Hull, England, adopted the same treatment: "Robert Wood aged 67, on June 4, was operated upon with wooden tractors, for a rheumatic affection of the hip, which he had for some eight months. During the application of the tractors, which was continued for seven minutes, no effects were produced, except a profuse perspiration, and a general tremor. On ceasing the application of the tractors to his inexpressible joy, and our satisfaction, the good effects of our labor were now produced and acknowledged; for he voluntarily assured us that he could walk with perfect ease, that he had the entire motion of the joint, and that he was free from pain." A large number of cases of similar import might be given to show the wonderful effect of faith in the cure of disease, assisted by substances which could not possibly have any effect except through the imagination of the patient.

PRACTICAL CONCLUSIONS.

The instances which have been given where diseases have been cured by the use of crumbs of bread in the form of pills and powders, and wooden tractors, are sufficient to show how powerful faith is in the cure of disease. If the same faith can be exerted in other directions, the same results can be obtained. If the faith is in prayer for the cure of disease the cure may result just as surely as it would if the faith was in something else that was used for the cure of the disease. Faith is an important factor in the cure of disease, and should be clearly recognized as such, and its aid called in more

generally for the relief of the afflicted. Faith will not do everything in the way of cure for every patient. Other means may be needed, but faith should be made to work with them. Where medicines are used it is well to tell the patient what effect is expected from them, so that the imagination of the patient may assist the action of the drug. Dr. Rush availed himself of the good effects to be derived from inspiring the patient's confidence in the means employed. He says: "I have frequently prescribed remedies of doubtful efficacy in the critical stage of acute diseases, *but never till I had worked up my patients with a confidence bordering upon certainty of their probably good effects.* The success of this measure has much oftener answered than disappointed my expectations."

It is not wise for physicians to discourage or ridicule the faith cures. They should recognize the curative agent there made use of, and in the future summon its aid in their own practice more fully than they ever have done. All physicians in their attempts to cure disease are assisted more or less by the faith that their patients have in them, in their skill, and in the means employed.

The aim should be to call into activity more extensively their powerful agency, and in severe cases of poor bed-ridden patients whom medicine and other means fail to relieve, the faith cure should be tested to its utmost for their restoration. The influence of the mind upon the body is all powerful, and should be constantly called into service in treating the sick. Hope is one of the best stimulants and tonics. Many of the sick who have been discouraged or despondent, can be wonderfully improved by imparting hope and arousing their courage. Their blood will circulate with renewed vigor, the secretions will be stimulated, the digestion improved, and new vigor imparted to the whole system. Such a change will oftentimes turn the scale in favor of the recovery of the patient. The ability with which some physicians manage the minds of their patients and inspire them with hopeful confidence, contributes largely to their success and popularity, as well as their usefulness. Surely we are fearfully and wonderfully made and there are more wonders in creation than are dreamed of in any of our philosophies.

H. REYNOLDS, M. D.

PHILIPPE PINEL AND INSANITY.

THE *Times* of Chicago publishes this appreciative sketch of a great benefactor: One day last month a beautiful statue of white marble was placed in front of the Salpetriere hospital in Paris. It represents a kind and intellectual looking man holding a broken chain in his hand, while a young girl at his knee, with the light of intelligence newly dawning on her sorrowful countenance, holds up to her benefactor a wreath of flowers in token of gratitude. On the pedestal are the words: 'Philippe Pinel.' Not gay Paris, not vine-clad France alone, but all the civilized world is under obligation to the man to whose memory this monument was erected, largely by means contributed by persons

who had been cured of mental diseases. Philippe Pinel was the father of the system of humane and kindly treatment for the violently insane. He was born at St. Andre, in the department of Tarn, in 1745, and died in Paris in 1826. His father was a country physician, and the boy showed an aptitude for scientific investigation. He studied medicine and various branches of natural science. In 1791 he was appointed director of an institution which was at once a prison, a hospital, a lunatic asylum, and a foundlings' home. The insane and malefactors were confined in the same cells or chained to the same columns. For the most part they were treated precisely alike. Like an angel of light and mercy the

new director appeared in this horrible place. He went among the inmates, who raved like wild beasts. He spoke to some of them kindly, and they became subdued. He showed no fear, but displayed much kindness. Some of the most furious of the lunatics expressed great surprise that he dared to approach them unarmed. To these he brought delicacies and flowers, and uttered kind words. In a few days all their exhibitions of violence ceased. Then he sat down by them and appeared pleased with their society.

The report of the management of the new director reached the Commune, and Couthou, the authorized visitor, was instructed to inspect the place. He is described by contemporaries as a "terrorist," and utterly wanting in compassion. He was a paralytic, and it was necessary to carry him into the place of torture. On his way he declared that Pinel was about the worst lunatic in the entire crowd. He soon saw, however, that a change had been wrought for the better. On his departure he said to the director, "Do what you like, citizen, with these miserable wretches, who are not much more mad, perhaps, than you are; but if you let any of them loose, look out for yourself." Couthou reported his observations to the commune, and permission was granted Pinel to manage the lunatics as he pleased. He now resolved to make some hazardous experiments. Among the most dangerous of the inmates was a sea-captain who had killed one attendant and had been kept in irons for nearly forty years. Pinel approached him during one of his most violent fits; put his arms about his neck, and assured him that he was sorry to see a gentleman in his condition. He suggested that if he would be reasonable he would release him from his chains and take him for a walk in the garden. The furious man became subdued. In the course of an hour the director caused the chains to be taken off, and arm-in-arm they walked into the garden. For the first time

in nearly forty years he saw the blue sky, smelled roses, and heard the song of birds. He fell at the doctor's feet and blessed him. After an hour he was taken back inside the building, but not to a dungeon, or to be bound in chains. He was placed in a clean room and allowed to rest on a bed. Here he slept like a child, as he was attended by his friend. In a month he had regained his reason and health. In the course of a few months he became an assistant in the care of the insane.

Pinel's next experiment was on another lunatic, one Chevigne, a soldier of enormous strength, who had more than once broken his shackles by mere muscular force. He had for more than twenty years been the terror of the establishment, and few dared to approach him even to give him food. He was an object of special attention and soon regained his reason. He was released, and during the stormy times of the revolution became a conspicuous person in Paris. On one occasion he showed his gratitude to the man who had been his best friend. Pinel was arrested on the charge of being an "aristocrat," and was being hurried by a mob of "Reds" to prison. Chevigne, himself a "Red," saw his old friend, and rushed on the men who were leading him away. He left two of them for dead and caused the others to flee for their lives.

The fame of Pinel in the treatment of the insane spread beyond the boundaries of France. Reforms in the management of lunatics, especially those of a dangerous character, date with the changes introduced by Pinel into the institution of which he was made director.

MOUNTAIN AIR.—In mild cases of nervous disturbance, in simple overwork, and mental exhaustion from worry and anxiety, mountain air is often a specific. Its tonic properties, the distraction of magnificent scenery, the purity of the air, the stillness of high altitudes, all contribute to the beneficial result.

HOT-HOUSE EDUCATION.

A FEW weeks ago many people were startled and horrified at the death of a lovely young girl, an only child, through the cruelty or ignorance of teachers who worried her into a terrible fever, which proved beyond human aid, by their unreasonable requisitions in the way of study.

It seems the mother felt anxious about her daughter's health, noticing how incessantly she was employed in her studies, and spoke to the teachers about it, thinking she must remove her from school, for a time at least, to allow her to recuperate. But the teachers wishing to retain a pupil who was an ornament to the school, and as they thought, a credit to her teachers, persuaded the mother to allow her to remain a little longer, promising that she should not be unduly urged or tasked. The mother yielded, but the promises of teachers proved delusive. The girl was a member of a class in a public school and as such was part of a great machine which must grind on remorselessly its daily grist. She must learn the lessons assigned to the class, or (terrible thought to most children) not be promoted at the next examination, lose her rank, lose the favor of her teachers, and sink in the esteem of her fellows. Nor could she be content to take a lower rank ; no, she must retain her place in the class no matter whether she had any time to play or not, no matter whether she felt tired in the morning as well as at night ; no matter if her head and eyes ached and she had no appetite, she must know her lessons or be disgraced. A few more weeks went on and her short, troubled life in school was forever at an end. During her delirium she raved continually of lessons, repeated by heart incessantly this, that and the other, which she had been required to memorize. Thus passed a few days and nights, and then the poor overtaxed brain found rest in death.

Nor is this an isolated case. As a gen-

eral rule, not only in public schools but in many otherwise excellent private schools, pupils are urged and stimulated to make the highest mental exertions during the hours of school, and then lessons are assigned sufficient to engross not only all the remaining hours of the day but which compel the children to study till bed time ? What time is left for play ? What time for the cultivation and growth of the physical, the affectional or the spiritual nature ? And what wonder is it that the few boys who survive this miserable system grow up hard and cold, thinking less of home and social and religious duties than of the business of making money and advancing their own interests in the world ; or that the girls grow up worldly and stylish ? There has been no lack of mental stimulus, and now in maturer years the brain is unnaturally active, always busy devising new ways and means—for what ? For relieving the poor and the afflicted ? for making home happy ?—not at all. No, the head has been cultivated at the expense of the heart. But :

“ It is the heart and not the brain
That to the highest doth attain ;
And he that followeth love's behest
Far exceedeth all the rest.”

What can be expected of a school-boy who for years has spent all his waking hours in a struggle to perform his school-tasks creditably, in order that he may have as good a standing as the other fellows ; whose whole thought has been of self, since no time is left him to think of others ; whose school years are just a ceaseless rush and struggle for place and rank, “ each one for himself and the devil take the hindmost.”

To cultivate the mental faculties and not the morals and manners is to make power without benevolence ; it is to make men and women sharp, quick, shrewd and active for what concerns their own interests, but hard and unloving to others ; it is to make them like steam-en-

gines running off the track and bringing with them mischief and destruction. Satan himself has an acute, active brain and indefatigable diligence in securing his ends. And yet there are many teachers who seem to be perfectly satisfied if their pupils attain to quickness and diligence.

Is it any wonder that this system of training should so often result in dwarfed, selfish, one-sided natures? It is indeed no thanks to the schools but only owing to the untiring influence of good mothers that there are still left to us so many large-hearted, unselfish men and women. Next to the mother, the teacher holds the most important place in moulding human character, and in making or mar-
ring our future citizens.

The late Prince Albert showed his good sense, and his discernment of what education should be when in offering a prize at Wellington College to be given by her Majesty, Queen Victoria, he made the conditions as follows: "To be given, not

to the cleverest boy, nor to the most bookish boy, nor to the most precise, diligent and prudent boy; but to the noblest boy, to the boy who shall show most promise of becoming a large-hearted, high-motivated man!"

This is the true idea of education. The whole nature is to be developed and brought to its best. "Time and patience turn the mulberry leaf to satin;" so says the eastern proverb. Mushrooms may grow in a single night, but the strong and noble oak is the result of years of growth. And if time and patience are essential in the vegetable world, they are still more so in the highest of all created natures,—the human being. Nothing really great was ever attained without time. A life of continual worry, hurry and struggle is not only fatal to the growth of the soul and the heart, but it is even injurious to the healthy development of the mind.

ANNA HOLYOKE HOWARD.

VALUE OF AN ABSCESS.

A CERTAIN railroad organ thus sarcastically and humorously hits off a suit at law against a Railway Company for damages to the person:—A physician of a Western town is trying to sell an abscess upon the posterior part of his anatomy to a railway company for \$10,000. The circumstances of this most interesting case, as related by an exchange, are as follows: The doctor boarded a train of the Cincinnati, Indianapolis, St. Louis & Chicago Railway in October last to go to a Democratic meeting in Indianapolis. The cars being well filled by pilgrims wending to the same shrine, Dr. Washburn went into the baggage-car and sat down not only upon an egg-crate but also upon a nail which protruded from the said crate, and entered, penetrated and pierced that portion of the doctor's body which must necessarily come into use if one sit down at all. It further appears that the railway company had negligently omit-

ted to scour this nail with brick or sand paper, and had permitted it to become rusty. The result of the puncture, it is alleged, was an abscess which caused the doctor great trouble, and even endangered his life. As a plaster to this wound he now asks the railway company to pay him \$10,000, and has called upon the court to enforce his request. The case is full of fine points—fuller of them than the egg-crate. Did the company invite and request the physician to enter the baggage-car and sit down on the egg-crate? Is it the duty of the company to polish up the nails in the egg-crates which it carries? Should not the doctor have looked out for nails before he sat down? Was the sore really an abscess, or only an old-fashioned boil? Was the doctor's blood in good order when he sat down on the nail, or did he inflame it unnecessarily by getting mad and prancing around in warm weather, when he discovered that the nail had gone where

it ought not? Can a man's blood be in good order in the midst of a "heated" Presidential campaign, and when he is on his way to a big political meeting? Might not the doctor in his enthusiasm have taken that method of nailing his colors to the mast, and only become sorry for it when inflammation ensued? Altogether the case embraces many very interesting medico-legal questions, and will, no doubt, result in settling many points hitherto undecided. It is a case of which it may truly be said that there is a point in it.

NICE GIRLS AND GOOD WOMEN. — If what a writer in one of the English magazines says be true, the women of Paraguay must be worthy of our admiring interest.

Cleanliness is the rule in Paraguay, and it extends to everything—dwellings, furniture, clothes, and person—nor are the poorer classes in this respect a whit behind the richer. Above all, the white sacques and mantillas of the women and the lace-fringed shirts and drawers of the men are scrupulously clean; nor is any one article in greater demand, though fortunately with proportional supply throughout the country, than soap. Each house has behind it a garden, small or large as the case may be, in which flowers are sedulously cultivated; they are a decoration that a Paraguayan girl or woman is rarely without, and one that becomes the wearer well. Without pretensions to what is called, classical or ethnologically taken, Aryan beauty, the female type here is very rarely plain, generally pretty, often handsome, occasionally bewitching. Dark eyes, long wavy, dark hair, and a brunette complexion most prevail; but a blonde type with blue eyes and golden curls, indicative of Basque descent, is by no means rare. Hands and feet are, almost universally delicate and small; the general form, at least till frequent maternity has sacrificed beauty to usefulness, simply perfect. As to the dispositions that dwell

in so excellent an outside they are worthy of it, and Shakespeare's "Is she kind as she is fair?" might here find unhesitating answer in the affirmation that follows, "Beauty dwells with kindness." A brighter, kinder, truer, more affectionate, more devotedly faithful girl than the Paraguayan exists nowhere. Alas, that the wretched experiences of but a few years since should have also proved, in bitter earnest, that no braver, no more enduring, no more self-sacrificing wife or mother than the Paraguayan is to be found either.

CLIMATE AND HYDROPHOBIA.—It has been stated by a San Francisco physician, Dr. L. N. Dorr, that no case of hydrophobia, in dog or man, has ever been known on the Pacific coast of America, North or South, although dogs are abundant. This extraordinary fact appears to be well established; at least it is impossible to find any record or history of the disease. He attributes the immunity to some peculiarity of climate, probably its electrical condition. He proposed to test the influence of the climate by sending some dogs from the East immediately after their being bitten by a rabid animal, and keeping them properly secured until the result is ascertained. A more practical plan would, he suggests, be to have a number of the many persons who are annually bitten by rabid dogs in the Eastern States and in Europe come to this coast, where the influence of the climate would be enhanced by the inspiration of hope. Even if the disease should come on under these circumstances, he thinks it might possibly be so modified as to render it susceptible of cure. This should be a matter of interest, now when so much attention is given to M. Pasteur's investigations. We hold that hydrophobia is a nerve disease, related chiefly to mental or psychological conditions, and naturally enough, change of scene and climate, as the California physician clearly intimates, would have no little influence.

NOTES IN SCIENCE AND INDUSTRY.

Salt Lake Rising.—ED. PHRENOLOGICAL JOURNAL:—I would correct and add a little to the article "Great Salt Lake as a Geological Index," published on page 353 of the December number of the JOURNAL. The statement that the Lake "is still falling," is a mistake, for it has been gradually rising for a number of years. During the summer when the rivers are used for irrigating purposes, the lake falls somewhat but during the winter it rises again. Salt Lake has seven islands, one of which is called Church Island, some twenty miles in length; so called from the Mormon church keeping stock there in years past. Twenty years ago this Island could be reached on horseback but now the intervening water is twenty feet deep. This shows a rise of about fifteen feet, but some dispute that it has raised so much. From the railroad leading from Ogden to Salt Lake can be seen fences running out into the lake. When these were built they were on dry land, but now they stand in the water.

The question is asked, "Why should the water have become briny?" I think the solution an easy task. At the southern extremity of Lake Bonneville, or a little beyond, are salt mountains where salt is now quarried like stone. This natural salt gradually dissolving found its way into Lake Bonneville. On the southern and western boundaries of Salt Lake are numerous saline fountains, the water of which is so briny that it is unfit for any use, except to manufacture salt. These fountains are very large and, no doubt, had their existence in the depths of Lake Bonneville. Thus, from two sources, were the waters of the ancient lake imbued with a certain portion of salt, which made its entrance at the southern end and its exit at the northern. When the lake began to fall on account of shrinkage in rain and increased evaporation it had no outlet and the salt remained as also did the supply of saline water. It will be remembered that no outlet has ever been found to Salt Lake, and its deepest part does not exceed fifty feet. If the rainfall should become as abundant here as in some states it would only be a question of time for the Salt Lake Valley, with all its cities, towns and villages, its fruitful fields and pleasant gardens, to fall below the rippling waves of a resurrected

lake. But at the rate the waters are now rising it would be many generations before this could be accomplished. It would take many years to reach the Mormon metropolis, which is now about ten miles from the bank, with a considerable incline toward the lake.

As the lake rises the water becomes fresher. The marshes are divided from the lake by a levee and the salt water is let in by a head-gate. During the summer the water evaporates and leaves hundreds of tons of salt which is scooped into wagons and hauled to the railroad to be shipped. The salt obtained in this way is coarse, transparent and strong. Table salt is obtained by grinding this or by boiling the lake water. The salt is stronger than that imported, but is not considered so good for dairy purposes. It is claimed that different portions of the lake produce as many as nine kinds of salt. The water is very buoyant and during the summer season is delightful to bathers, and Salt Lake City sends out two or three bathing trains each day at that time of the year.

There is a legend among the Mormons, that when their pioneers came to Utah, in 1847, they found a very aged Indian in a small tribe, who told them that when he was a papoose, his parents travelled from one mountain to another in a canoe. It is further claimed that an early party of explorers mentioned a large fresh water lake in the Rocky mountains. If this can be substantiated, it would bring the shrinkage of Lake Bonneville down to a comparatively recent period.

C. H. BLISS.

Coal not of Vegetable Formation.—Prof. Raker, a geologist of North Carolina, writes in relation to Hon. Andrew Roy's criticism of Prof. Orton's theory of the origin of coal: "The letter written by Andrew Roy to the *Ironton Register*, has been noticed in the *Mining Review*, criticising Prof. Orton on the geological coal formation of Ohio, and has been read with much interest. The long established theory that coal has been formed from wood or vegetable matter is all bosh. No one who has been a close observer and has had practical experience in the mining of coal would give the idea any attention. Coal as well as all other minerals has been formed and is still forming by and through a chemical process, by a combination of gases and materials prepared by nature for the purpose.

"No one will attempt to deny that minerals are held in solution in water; take for instance lime water, it will form limestone. Copper has been gathered in its native state from water. Sulphur can and is often gathered from water in large quantities, thus proving this fact. Coal is, as a general thing, found in certain basins, sometimes lying very deep under immense strata of rocks in regular formations, with no signs of any upheaval or volcanic action, making it impossible for wood or vegetation of any kind to be found at the bottom of these basins. Do you admit that rocks are forming? If so, then this will settle the question. Can not coal be produced with the aid of the gas, the sulphur and other combinations? Certainly they can and do form. Often shapes of animals and stumps of trees have been found in coal mines formed in coal. If chemical activity has the power to form coal from rock, it can and will form wood or any other material that it comes in contact with not conflicting in its nature. Take some of the finer minerals, copper ore for example. In these ores there are very often found gold, silver, copper, lead, quite a combination. Why? Just because the chemicals that form the minerals contain the properties necessary to form those minerals. Having had many years of practical experience, as well as study of geology, I must give it as my candid opinion that Mr. Roy is right, and the time is not far distant when practical men will take the place of men who only make their theory from what some one has written many years ago."

Profit in Timber Growing. — A writer says in *Vick's Magazine* on this subject:

In a former article I spoke of the profit of timber growing, and gave some figures which I could vouch for, to show that in many localities the planting of timber is likely to prove one of the safest and most profitable investments that the farmer can make. The past season has furnished strong proof of another advantage of timber belts, which is of sufficient importance to have a large influence in inducing farmers to plant timber. I refer to the protection which timber affords to winter grain, grasses and stock.

It is known to all readers of agricultural papers that through a large breadth of our best farming lands more grain was winter-killed during the past winter than was ever

known in a single season before. My own County of Butler, Ohio, suffered as much, perhaps, as any, more than half the winter grain being totally killed. As crop reporter for the Department at Washington, I paid close attention to the condition of grain, and I found that invariably when I found a field that promised a profitable yield, it was due to the protection of timber. Even a tall hedge along the side of a field saved a wide belt, and when a field could be found with timber on the west and north it was but little injured, even though extending sixty or eighty rods. Early seeding and fine condition the previous autumn, liberal manuring and the most thorough preparation of seed bed, all counted for nothing; but wherever a timber belt was found bordering a field, there was a good crop. This confirms a statement made by Professor Townsend, in a lecture before the agricultural class at the State University, that "on the prairie lands of the west it had been found that with one-sixth of the land planted in timber, the remaining five-sixths produced as much grain as the entire amount without the protection of the timber."

The Conversion of Refuse Matter to use.—A contributor to the *Providence Journal* tells some interesting truths and some apparently fanciful things about how waste products are worked up in the following: "Now-a-days there is as much truth as wit in the old saying that dirt is only matter out of place. In a recent publication entitled 'The World's Lumber Room,' Selina Gage amplifies and illustrates the ancient saw, showing that nothing is or need be absolutely lost. The slag from our great furnaces, once a positive obstruction and burden, is now used for concrete walls, railway ballast, foundation stones and the finest spun glass. Coal tar which was a similar dead weight on the hands of the gas makers, is made to yield up its rich stores of carbolic acid, naphthaline, benzole and paraffine, from which are obtained the most delicate scents of perfumery; and more valuable still are the rich aniline dyes it contains, now used in producing the most brilliant colors of our woollen and silk goods. Sawdust produces sugar, a regular article of manufacture in Norway, and the sugar is turned into brandy; oxalic acid, charcoal and potash come from the same source. Cotton seed, heretofore thrown away, is used to fatten cattle in this country and in

England. Nature's largest lumber room is, however, required for her dust. Were the atmosphere free from it we would have no reflected light, and our days would be passed beneath a sky of inky blackness, and in an atmosphere which would give back but a dull glimmer without glitter or color. More than this, without dust we should probably have no fog, no clouds and no rain. This is the utilization of dust which nature makes, but man has never followed or approached the example. Dust carries its clouds of disease-breeding matter all over the world; we breathe and live in an atmosphere of carpet-sweepings, emanations from the human skin, coal dust from the stove, iron filings, pollen, wood and leaf fibers, grindings of stone, siftings of earth and vegetable mold, etc. And, as if we did not kick up enough dust of our own, Arctic observations of meteoric dust show that more than five hundred million tons of impalpable powder fall uniformly and steadily over the whole earth annually."

A Meeting of Microscope Makers.—At the recent meeting of the Biological and Microscopical Section of the Academy of Sciences, Philadelphia, there were displayed in all one hundred and twenty-one microscopes, representing the following makers: Zentmayer, Beck, Queen & Co., Cheyney, Crouch, Gundlach and Zeiss. According to the report given in our Exchange the objects shown were both instructive and beautiful, representing professional and amateur work, much of the latter being worthy of commendation. Among the many mineralogical specimens exhibited were native crystals in mica, with polarized light, crystals of cuprite, arsenious acid, aragonite, cinnabar, gold and iron, the latter showing the graphite plates, which by their relative proportions given in our Exchange constitute the difference between cast-iron, wrought-iron and steel. The botanical preparations were designed to show the histological structure of the higher plants and the peculiarities of the lower, the fructification in the phanerogams and its different phases and variations in the cryptogams. The reproduction of mosses under varying conditions formed an exceedingly instructive group of objects. The myxomycetes, one of the groups of this order, were well represented, as their beauty makes them highly attractive objects. Many handsome diatoms were shown; an unusual preparation was

one showing sections of these minute and delicate objects. A microscope showing cyclosis or circulation in the living plant-cell was highly appreciated.

In the department of zoology many educational objects were exhibited, showing the anatomy of insects, the general structure and visual organs of mollusks, frog's blood double stained, a fine specimen of the chick-embryo on the second day of incubation, living crustacea, and the circulation of the blood in a living salamander.

The Nature of Flame.—According to Dr. Siemens, large furnaces, on account of the nature of flame, must replace small ones. He claims to have proven that solid substances interfere with the formation of flame, and that flame injures solid substances with which it comes in contact. To account for the phenomena he advances, preferably, an electric hypothesis. Accordingly he explains flame as the result of an infinite number of exceedingly minute electrical flashes, the flashes being due to the very swift motion of gaseous particles; and a solid body which opposes itself to these flashes is cut by them, while the motion being more or less arrested by the solid body, the flame is thus more or less subdued. Siemens insists, therefore, that flame must not be allowed to impinge on bodies to be heated, but must simply heat the bodies by radiation, and furnaces must be so constructed as to allow the flame to develop out of contact, not only with the substance on its bed but with the walls and roof of the furnace itself.

Monument to a Workwoman.—Recently a monument has been erected in Annaberg, Saxony, to the memory of Frau Barbara Uttman, in recognition of the great service rendered to the working women of Saxony more than three hundred years ago, when great distress was prevailing on account of lack of work. Barbara Uttman made a journey to Brussels and learned lace-making, making a speciality of point-lace; then returning to Annaberg she instructed her fellow-workwomen in this art, and so relieved a great deal of suffering. The monument is a drinking fountain surmounted by a statue of Mrs. Uttman in the German dress of the middle of the sixteenth century. This is about the first public recognition of woman's worth that has been made in Germany.



FOWLER & WELLS COMPANY., *Publishers.*

H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
FEBRUARY, 1886.

THE WANT OF MORAL TRAINING AND CRIMINALITY.

IN the years past we have penned editorial items in which ground was taken against the common view that education, as our common schools generally supply it, is the grand remedy for vice and crime of high and low degrees. We pointed to the chief actors in cases of official dishonesty, in the frequent robberies large and small in the walks of commercial life, and in the irregularities of the social circle, and showed that they as a class belonged to the educated. We cited the rolls of prisons and penitentiaries in our older states, to show that the great majority of their inmates could read and write, and a large proportion had attended the public schools two years or more. Our motive in writing at such times was to show the great necessity for moral training as well as intellectual to the young of our population; and that the integrity of our national institutions, and the solid development of our people, was dependent as much upon moral training as upon intellectual.

Now we would add a statistical item or two to the statistics given afore-time and then consider another point that the matter involves. In one of the Pennsylvania penitentiaries there was recently said to be 1014 inmates. In another prison of that state 1605; in still another 2383 convicts. Nearly all of these could read and write. Of 1368 persons confined in the State prison at Auburn, N. Y., 1182 were said to have more or less education. But we are told in this connection that of the 1014 only 7 were mechanics; of the 1605, 1219 had no practical knowledge of any trade; of the 2383, 1950 were in the same pursuittless condition. In the Auburn prison fully as large a percentage of the tradeless were found. And later, of 2184 persons arrested in Chicago 1438 had no definite occupation.

Here we get at one grand reason for the idleness, vacillation and shiftlessness that prevail in our large towns and cities. Want of purpose, fixedness of attention to some settled employment in a young man—or woman—tends to laxity of nervous fibre and instability of intellectual action. There appears very soon, in such a case, a weakness of will, a loss of individuality, and the youth becomes the subject of his environment, the pliant tool of circumstances. Moral training is the most efficient aid to motive—just as it supplies reasons for useful activity in one's immediate sphere—reasons flowing out of personal responsibility, as a brother, father, husband, friend, citizen, *man*—so it indicates opportunities occurring directly in one's sphere for the employment of time and talent; and this contributes to peace and satisfaction of mind.

It matters not how far the cultivation

of the intellectual faculties is carried, if the morals are neglected there will be evidence of irregularity, unbalance, excess. There are many brilliant *cranks* among us, men and women, who elicit our admiration at one moment and our contempt at another. They are one-sided, unsteady, because lacking in moral development. Would that the world could recognize the necessity of moral culture to mental poise. Washington, Jefferson, Webster, Seward, Lincoln avowed the need of religious sentiment to render our nation substantially prosperous, permanently great. They saw in the feeble morality of the people the decline of the State. So we see in the abounding extravagance and frivolity of metropolitan life a falling away from the sober mental poise that is consistent with moral strength—and that our cities supply the bulk of criminals that crowd the state prisons is not strange.

"Humble toil and heaven-ward duty, these will form the perfect man," writes Mrs. Hale—and she is right. "Morality when vigorously alive," Mr. Froule says, "sees farther than intellect, and provides unconsciously for intellectual difficulties." We must do more for the youth of the land who are crowding into the arena of life from the common schools. We must provide them some security against the temptations and excitements that thickly abound at the very threshold. So long as their characters are permitted to form irregularly, haphazardly, without the discipline and checks of moral sentiment rendered active and influential by training, we must expect the majority to be saddened, or sobered, dismayed or broken down by disappointments, and worse than that

we must expect many to yield to the incitements of vice, and plunge madly into the whirlpool that leads to crime and destruction.

MORE SMALL CRITICISM.

"IN Germany Gall and Spurzheim were among the best abused of men. In England, Jeffrey—who would with equal light-heartedness have written a criticism upon an operation for cataract, or the manœuvres of the Channel Fleet—attacked them fiercely through the *Edinburgh Review*. And his popular and caustic pen largely, no doubt, contributed to the lowness of the place their labors held in public estimation. The scientific world seems to have been less exercised and antagonistic than might have been expected. And it was not till ten years after Jeffrey's article, and more than five-and-twenty years after the promulgation of the *Opus Magnum* of Phrenology, that any very serious assault upon it was made from the strictly scientific side. This, strangely enough, was organized not in the camp of the professed anatomists or physiologists, but in that of the metaphysicians. Well supplied with the results of physicial investigation, Sir William Hamilton advanced to his opponents' position, and fairly carried it by storm. Starting with the philosophical assumption that the question at issue was an open one only to be decided by the logic of facts, he first discusses the theory of Gall and Spurzheim regarding the functions of the lower and back part of the brain, known as the cerebellum; and categorically refutes the several assumed reasons for this theory—one that here can only be alluded to in passing."

This paragraph is taken from an article that was published last year in the *London Graphic* and which abounds in other statements quite equal to it in one-sidedness, and, shall we say ignorance? It seems to us almost incredible that a

man of so much *literary* cultivation as this writer appears to be, should be so wanting in candor. We can understand and excuse ones ignorance of a subject, especially a subject requiring technical training, but straight-out utterances, that are replete with prejudice and evident ignorance while their phraseology denotes literary training, merit emphatic censure.

This new critic of Phrenology, who disposes of its claims in so prompt a fashion, has evidently obtained his little information of the Jeffrey and Hamilton controversies at second hand, and that of a purely *ex parte* character, on the Jeffrey and Hamilton sides. We would kindly advise him, and all who partake his opinions, to read Mr. Jeffrey's own words as they appeared in his more brilliant than sound, *Review* article, and then to read with equal care Mr. Combe's answer as it appeared in the *Edinburgh Phrenological Journal*, Vol. IV., 1827. The trenchant and yet honorable manner in which Mr. Combe exposes the fallacies and absurdities of Mr. Jeffrey's reasoning and physiology must win even the respect of the *Graphic* writer.

As for Sir William Hamilton's tremendous achievement in having "fairly carried it by storm," the *Graphic* writer must surely be ignorant enough of latter-day physiology, assuming that he knows the postulates of the Scottish philosopher concerning Phrenology, else he could not make so extravagant a statement in a weekly with a large circulation. Let him read the correspondence in the *Scotsman* and *Caledonian* newspapers of Edinburgh, the report of the umpires to whom the questions at issue were referred by both sides, and then let him

consult modern authorities on the physiology of the brain and skull, and if he possess but a minor degree of the judicial quality, and does not acknowledge that the field was fairly won by the phrenologists we will resign our place to a less scrupulous admirer of the great man who laid the foundation for educational reform in the schools of his country.

ENTHUSIASM IN PHRENOLOGICAL STUDY.

WE think that phrenologists are as subject to the charge of enthusiasm as any other class of thinkers, for it seems a special trait of theirs to declare their belief at every opportunity. One who has been known by his friends for reticence and reserve no sooner becomes a convert to the truth and gospel of Phrenology than he discovers a new activity, a disposition to impart what he has learned to others, and his old acquaintances in their surprise may be rather free in the use of the terms "cranky," "off his balance," "crack-brain," while they are not able to deny or refute his statements. In the benign law of morals, truth and duty are inseparable. When a man has cordially accepted a moral principle that has a close relation to human conduct, he feels impelled to illustrate it in his life and declare it in his talk. He finds the highest form of enjoyment in practically showing forth his earnest convictions. The lives of all teachers of moral, religious and scientific truth are a demonstration of this great fact in the mental economy of man. We have known men and women who had been engaged in benevolent missionary work as an occupation, and who came to the study of Phrenol-

ogy with doubts and misgivings, when they had learned of its true nature blossom into such earnestness and zeal as they had never exhibited before, and for the reason, as they most warmly expressed, that they saw as they never had seen before the way in which to labor with success. They now understood themselves and human nature and could apply their experience, abilities and influence to far better advantage.

The enthusiasm of some students of Phrenology is amusing to us, while at the same time we rejoice at it. To be sure, false steps may be taken by the enthusiast, some indiscretions may be committed through lack of experience, but the spirit of truth is seen working in the man or woman—the desire to help others born of the help they have recognized in themselves, prompts to high exercise every faculty of their nature. They would let their light shine—be seen of men—and the ultimate effect is good.



DEATH OF NAHUM CAPEN, L. L. D.

IT is with deep regret that we have learned of the death of Dr. Capen, one of Boston's oldest and most esteemed citizens. He had evinced an earnest regard for the cause of Phrenology—from the time of Dr. Spurzheim's visit in 1832, when he became what he was ever afterward proud to be considered, the personal friend of that great man. He had been sick but about two weeks previous to his death, having contracted a severe cold. Dr. Capen was born in Canton, Mass., April 1, 1804, and after receiving his education in the public schools of his native place came to Boston, and at the age of 21 years went into the publish-

ing business as a member of the firm of Marsh, Capen & Lyon. He continued in this business a long period, with several changes in the style of the firm. Possessed of literary tastes, he was an author as well as a publisher, and during his whole lifetime kept his pen employed. He was a frequent contributor, anonymously and over his signature, to newspapers and magazines, and was engaged in the last portion of his life in the completion of a "History of Democracy," a work projected years ago, and intended at first to comprise three volumes, but which is to include four. One volume has already been published, two more are completed and the fourth is so far completed, that the work will be readily brought to a conclusion by others. Mr. Capen wrote a "Biography of Dr. Gall," and edited his works translated from the French; prepared the "Biography of Dr. J. G. Spurzheim," prefixed to that scholar's work on Physiognomy; and was the author of other works on history, political economy, etc. He edited the Massachusetts State Record from 1847 to 1851, was the principal editor of the "Annals of Phrenology," and also edited the writings of Hon. Levi Woodbury, L. L. D. He was among the first to memorialize Congress on the subject of international copyright, and a letter of his, published by the United States Senate, led to the organization of the Census Board at Washington. Mr. Capen was appointed as Postmaster of Boston by President Buchanan in 1857, and held the office until 1861. During his term he was an earnest advocate of the free delivery system, and through his urgency the custom of collecting letters from the street boxes was introduced. As in

his early so in his later life Dr. Capen was a student and observer and active worker, having in view the doing of such things as would be useful to society. One of his last literary productions was the interesting semi-autobiographical volume "Reminiscences of Spurzheim,

Combe and others." The editor, as well as the publishers of this magazine, will ever remember Dr. Capen's beautiful face and dignified form that were wont now and then to be seen in our office. We would that such men might be immortal—they glorify humanity.

Our Mentorship Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

THAT AND AS.—*Question*:—Please tell in the next JOURNAL which is proper, "I do not know *that* we shall do so," or, "I do not know *as* we shall do so.—H. S. J.

Answer.—We prefer the use of "that" in such a connection, the particle "as" generally expresses comparison or manner or the condition or quality in speech; it is very frequently used, we know, as in the sentence you have given, but when we come to consider exactness of language we think that it is an irregularity.

FRUIT EATING.—A. K. W.—Hygienic authorities differ somewhat with regard to the time for eating fruit. We are of opinion that fruit should form a part of the regular meal. Some are in favor of fruit-eating half an hour or more before breakfast, claiming its effect is excellent in strengthening the tone of the stomach, preparing it for its work. This for the most part is true if the fruit is eaten in moderation.

CHANGING EYES.—W. J. M.—The eyes of some persons do change in hue. Emotion often has the effect of deepening color. Some tones of blue in the iris are changeable; so too brown eyes may exhibit transitions.

STUDY OF TELEGRAPHY.—J. B.—There are several schools in New York, and in other large cities, where one can learn how to operate telegraph machines. We think that girls are well adapted to the work. The wages paid to competent operators are from fifty dollars up. Of course this is an occupation which has a tendency now-a-days to be crowded, so that one may be compelled to wait some time for a place after having learned to tap the key.

CHANGE OF OCCUPATION.—J. H. C.—You profess a strong inclination to literature, and at the same time show that you are greatly wanting in continuity. It is very important that you should possess power of attention and concentration of faculty if you expect to be successful in one of the most difficult of pursuits. You may, however, school yourself in the matter of application. It is quite probable that your habits heretofore have tended to render you vacillating and irregular, mentally. We at any rate would not advise you to give up your present employment altogether; it supplies a means of livelihood at least. Use what leisure you can obtain for study in the direction of your leaning, and after a time you may be able to secure a clerkship which will be a definite step toward what you prefer.

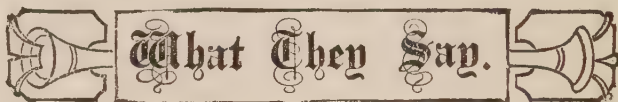
A PERSIAN CUSTOM.—Our Calcutta correspondent Mr. Doss, mentions in a recent letter that it is an established custom with the people of Persia on the birth of their children to have mid-wives mould the baby's head, and that they do so with great dexterity. This custom has not been the sole property of the Persians, for other Asiatic peoples have been known to do the same; but it ought to be understood that unless constant pressure is made with apparatus the moulding process of a mid-wife's hands on a new born infant's head will have but little effect as nature in subsequent development of the child's brain tends to assert itself, and to indicate the social and family type in form.

MIND READING.—O. J. S.—We infer from your question that you mean the experiments that are made now-a-days in private and in public by so called mind-readers, the experimenter, who finds hidden articles or actually expresses the thought that another has in mind, obtaining his clue through the involuntary muscular action of the person who has hidden the article, or knows where it is, and is thinking on the subject which the mind-reader has to discover. The reports of the proceedings of the Society for Psychical Research in London contain a good many experiments of this kind; also a recent book "Mind and Beyond" founded upon those reports, has been published in Boston. We do not know any text books on Clairvoyance.

HAND-WRITING AGAIN.—L. G.—We think that by carefully reading the articles on

"Indications of Character in Handwriting" which are now being published in the PHRENOLOGICAL you will obtain a sufficient knowledge of the author's method to make an application of it in your own case. We are of opinion that the principles he has set forth cover the field of character in hand-writing, and about all there is known of the subject is described in practical and logical terms.

FILTERS.—A. P.—The apparatus you name has a good reputation; it is a combination made in accordance with the common principles of filtration. We also hear good reports of the "stone" filter, but this is somewhat more expensive than the charcoal combination.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

Electro-Psychology in Practice.

EDITOR OF PHRENOLOGICAL JOURNAL.

Dear Sir:—In the late September number of your monthly I saw some remarks on "occult power," by Mr. J. McLeod, and up to date have seen no reply to his query for an explanation, why one person can influence or impress another when not mesmerized. Psychology teaches that there are many persons who are continuously in the electro-psychological state, and these can be impressed by a person who is positive electrically. Yet, the subject is perfectly conscious and remembers all that occurs and is fully awake, just the opposite of the subject mesmerized, who is unconscious of what occurs while in the mesmeric condition, and remembers nothing of it.

Mankind are either positive or negative electrically, or in the state of equilibrium, and moreover the right side of the body is positive and the left side negative electrically. Good health is being in a normal condition. A sound mind must be in a sound body. Disease is to be in an abnormal condition in a non-equilibrate state as regards body and mind. While I am in good health and live correctly I am positive to disease and can cure many nervous types without mesmerism, medicine or rubbing. My mind then, is positive, and it acts upon the mind and body of the diseased person. Some nineteen

years since (while at school) I found that I possessed the power to control negative persons at will, without contact. Since that time I have been a close student of metaphysics and electro-psychology and now find that I can usually influence a sick person, for he is negative to me. The soul—the mind—can not be explained by the sciences of chemistry or physics, but can be somewhat perceived through the science of electro-psychology.

All health is really in the mind—soul. Disease and pain are not in the body *per se*. A dead man weighs just the same to a grain as he did when alive, and yet the body has no feeling, no pain. Where then is the pain of the disease? I answer in the *mind*, and disease is only known by the *mind*, through the nervous system. There is an eye of the mind; there is a spiritual eye, there is an inward voice and guide which silently impresses man when and how to act, and also when to not attempt to cure impossible diseases. Yes, there is an interior principle which man should follow. It's the soul of our soul—the life of our life, coming direct from God through the electrical law, for we are the children of the Most High, and the highest manifestations of God in the Universe. This is a sublime truth which gives us dignity and power. In the soul reside all the active vital powers that man possesses. To live truly, means to think and act truly. It is the Spirit that maketh alive and imparts to us the Divine energy of cure.

No sane man will say that Jesus practiced deception in performing his wonderful cure by putting clay upon the eyes of the blind, or in raising Lazarus from his sleep. The same law of cure which he used 1850 years ago exists to-day. Did he not say to the twelve and the future world, "Ye shall do greater things than these?" For Jesus to have attempted in that age to explain the Divine law of cure, would have been talking to stones, for the "fulness of time" had not come. To be well, men should live correctly and make it a business to breathe deeply and fast, especially just before exposure to contagion. This will surcharge mind and body with the positive principles of prevention. To treat or control an insane person place the left hand or finger upon the organs of Individuality and Eventuality, and the right upon the 5th or 10th cranial nerve, and request him to breathe deeply, at the same

time impress him and guide his mind to think upon other things than the one upon which his mind is disturbed, and then induce him to take a nap and tell him you will awake him at — o'clock, and he will usually agree to sleep. Then use all your power to restore his reason, and if he has not been too long insane there is hope for his recovery.

To treat shaking palsy, place the left hand upon the forehead and the right upon the nerves of sensation, and will and request the person to remain quiet, and treat him often at first as the symptoms seem to require.

To treat paralysis, when motion or feeling is gone completely, try to induce action by placing the left hand or thumb upon the organ of Individuality and the right upon the median nerve, and direct the hand to move at will. A few trials will usually cause it to do as you desire.

To induce feeling, place the right hand fingers upon the nervess of sensation, as aforesaid, and the left upon the pneumogastric nerve and ask the patient to breathe deeply and fast, and soon a tingling, creeping feeling will be perceived; persevere in this treatment of motion and feeling.

To treat seasickness, place the right hand upon the pneumogastric nerve and the left upon the nerve of sensation, and ask the subject to breathe deeply, at the same time divert his mind by encouraging conversation, and in five minutes relief will be the result. I have never failed to cure it whether on salt or fresh water.

LESTER A. HULSE.

Biometry Not A New Discovery.

EDITOR JOURNAL.

In the December number of your very instructive magazine, I find a paper signed, T. S. L. M. D., which invited my attention, and held it until I had carefully read it. The title of this paper is "Biometry" and the writer seems disposed to regard as new a method of ascertaining the comparative longevity of people by measurements of the head, an idea that is known to most professional phrenologists. About 1854, Prof. Powell, of Cincinnati, Ohio, announced to the world that he had discovered the fact and verified it, that the base of the brain is devoted to the sustenance of life, and that by a measurement, which he gave, the probabilities of early death, or long life of any person could be determined, with a degree of accuracy which would prove of great

service to the physician, and Life Insurance Companies.

In 1856-7, I attended a special course of lectures by Prof. Powell, delivered in the Clinic hall of the "Eclectic Medical Institute" Cincinnati, on the general subject of Cerebral Physiology. During this course he dwelt at length upon his new discovery of the "Life Line" as he called it, demonstrating his theory, by measurements of skulls, and of living heads before the class. The formula for the measurement, as given by Prof. Powell, is this. "Draw a line from the external orbit of the *os frontis*, to the center of the spinal protuberance of the *os occipitis*, then measure from the *meatus auditorius externus* up to this line." This measurement gives the depth of that portion of the brain devoted specifically to sustaining, and conserving life. The average is about $\frac{3}{4}$ of an inch, the minimum in adults $\frac{1}{2}$ inch, and the maximum, so far as he had observed, $1\frac{1}{4}$ inches. With half an inch only, one has very slight hold on life, and is not likely to reach the age of forty years. Three-fourths of an inch, gives a probability of sixty to seventy years; an inch eighty to ninety years, and an inch and a quarter, one hundred to one hundred and ten years or more.

For almost thirty years, I have relied chiefly upon this measurement, as a basis of *prognosis*, in chronic diseases especially.

WASHINGTON, D. C. T. A. BLAND, M. D.

Thanks.—"We have received your beautiful Phrenological Chart and hung it upon the wall; also the JOURNAL is received. We indeed thank you for placing us upon your list. We thank you in the name of the people who derive benefit therefrom. Librarian, L. I. Free Library, Brooklyn, N. Y."

PERSONAL.

MARY H. HEALD, M. D., wife of Dr. Pusey Heald, associated with him for many years in the management of Heald's Hygeian Home, at Wilmington, Del., died Dec. 31, last after a prolonged illness. The deceased was formerly a Miss Homer, and prior to practicing her profession in this city was physician to a Hygeian Institution at Dansville, N. Y. In 1871, with her husband, she established a Home in Wilmington.

Her career has been conspicuously successful. At the Home she has treated hundreds of patients affected with all sorts of

maladies. The arduous duties which she imposed upon herself, at length, overtaxed her strength and for the past two years her health has been very poor. She was a lady of very genial disposition, winning all who became acquainted with her.

M. FRANÇOIS JULES P. GRÉVY was re-elected President of the French Republic at Versailles on December 28th, on the joint vote of the Senate and Chamber of Deputies acting as a national assembly. M. Grévy's total majority on the joint ballot was 135. Although his late administration has not been characterized by any marked personal vigor or eminent ability, the French people appear to be satisfied with him to try him six years more.

"KING LEOPOLD," of Belgium is said to be six feet four in height, well proportioned, with a high forehead, very open, pleasant countenance, social and communicative, speaking the English language well, and having a high appreciation of America and Americans.

On November 26th, the memory of SIR WILLIAM SIEMENS, the inventor and scientist, was honored by the unveiling of a memorial window in Westminster Abbey. Although not a son of England by birth, Siemen's illustrious career was begun and finished on her soil, and it is but fitting that the great repository of her heroes and geniuses should hold a mark to his memory.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

People that have nothing to do soon become tired of their own company.

—If there is any person to whom you feel a dislike, that is the person of whom you ought never to speak.—*Cecil*.

There is no man so great as not to have some littleness even more predominant than his best greatness.

Conceit is to nature what paint is to beauty; it is not only needless, but impairs what it would improve.

We have seen a thousand people esteemed, either for the merit they had not yet attained, or for what they no longer possessed.
Sr. Evremond.

A man may be "rising" in business, in wealth, in his profession, socially, intellect-

ually, even ecclesiastically, and really not be rising at all.

Let us remember those that want necessities, as we ourselves should have desired to be remembered had it been our sad lot to subsist on other men's charity.—*Atterbury.*

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

What English author has the longest name? —Smiles. Why?—Because there is a mile between the first and last letter in his name.

One of the first lessons that ought to be taught at the fashionable cooking school is: "Never stir the hash with one hand and smooth the hair with the other."

Deaf old gentleman: "The conversation seems very amusing, my dear. What is it all about?" *Hostess* (fortissimo): "When they say anything worth repeating, Grandpa, I'll tell you."

"You can not taste in the dark," said a lecturer. "Nature has intended us to see our food." "Then," inquired a forward pupil, "how about a blind man at dinner?" "Nature, sir," answered the professor, "has provided him with eye-teeth."



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

ROSE BUDS; By Virginia Gerson; large octavo; pp. 64. Price, \$2. White, Stokes & Allen, New York.

A charming holiday book for the little people. So attractive—in fact—that older members of the family circle into which it comes will find excuses for looking over little shoulders and studying the odd illustrations. The text is of the simplest character well adapted to little minds, and the pictures explain themselves. Pages 24 and 25

are worth the price of the book to one gifted with Mirthfulness. Honor is really due to those who weave into the web of life, such pretty, restful, artistic "nonsense" as is presented in "Rosebuds," from the wreath on the first cover page to the little rosy witch who is evidently riding away to "a castle in the air," on the rose-laden twig that adorns the back of the cover.

THE INFANT PHILOSOPHER: Stray Leaves from a Baby's Journal. By T. S. Verdi, M. D., Parchment paper, 30 cents; cloth, 50 cents. Fords, Howard & Hurlbert, New York.

This bright little journal begins where all systematic histories should begin, at the very beginning of the author's experience. The baby narrates his first glimpse of life and the world; and the manner in which he slowly distinguishes impressions, sights and sounds, and applies them to himself, is pictured with great cleverness. As the journal proceeds the "Infant Philosopher" tells of his encounters with the tribulations and ailments of infancy, and philosophizes over the treatment and the remedies. In this connection Dr. Verdi has not neglected to throw a good deal of light upon the grave mistakes of careless nurses and short-sighted mothers. The policy of silencing the child's pain by any convenient nostrum, without for a moment considering the after-effect upon the child's system, is condemned, as it should be, with force. Incompetent and reckless nurses come in for a liberal share of the young philosopher's naive invective; mothers who treat babies as though they were senseless machines of mere flesh and blood are sharply looked at more than once; and there is one chapter which describes, with most amusing simplicity, the confusion caused by the numerous foolish nicknames for familiar objects first taught to the baby.

Written in a humorous vein the little book interests us in the outset, and we find ourselves laughing at the unfortunate situations of Baby, while at the same time we can not but see the sarcasm of the writer, as he hits off the mistakes and follies of people in the management of young infants. He administers some hard slaps at the way even doctors treat babies at times. If the author were not a physician and an experienced one in the very line of his writing, we should call him over cynical. Yet we think it would not hurt mothers to read the book.

AN IRON CROWN. A Tale of the Great Republic. 8 vo., pp. 560. Cloth, price \$1.50. Chicago: T. S. Denison.

A strong story in its way illustrating methods in business and politics, especially the latter, that are common enough in our metropolitan centres, and smiled upon or abetted powerfully by the wealthiest. The talent shown by the writer is more vigorous than deft and skilful, reminding the reader of the style of the enterprising newspaper reporter whose half-column items touching incidents in high and low life often form the varied reading for the public eye. The description of the saloon keeper, who is a "whipper in" for his party, or rather the thirsty office-seeker who hires him, is certainly of this reportorial type and a striking bit of writing.

The characters are generally drawn with strength. Tom Norwell is a specimen of the whole-souled fellow who allows himself, through want of courage to say no, to be drawn into a most dangerous position—a sad and tragic one. His best lady friend, May Price, is a sweet piece of womanhood. Horace Roker is a thorough villain, but far from the conventional villain who abounds in mystery and dark plots. The Malley twins are certainly an original production of literature. Their oddities can not fail to keep the reader amused. Fred Snicker is a dude of the well-known type.

The aim of the author is to show in colors anything but bright and winning the spirit of ambitious monopolists and money-grabbers, while a rather interesting love passage is woven into the drift of incident.

MANUAL OF CO-OPERATION; A Practical little volume; pp. 78, price 30 cents; paper covers, 10 cents. J. B. Alden, New York.

Mr. George Jacob Holyoake, Rev. R. Heber Newton, D. D. and the American Sociologic Society have co-operated to produce a manual for all who are interested, practically or theoretically, in solving the greatest of all social and economic problems—the true relations between labor and capital, the bettering of the condition of the industrious and deserving—and this is the result. The statistics it contains are interesting as showing the growth of opinion favorable to "co-operation" in the best sense of the word.

Like all innovations co-operation has been misunderstood and misapplied; the crude ideas have been used for the aggran-

dizement of schemes, and as a natural result there has arisen a very strong prejudice in the general mind against all plans of co-operation. Rushing headlong into schemes, of which the reasons for and against are not fully worked out, is one of the *vices* of the present age; and many of the most eager advocates of co-operation have in reality made but a very superficial examination of the subject. With admirable fairness—the successes and failures of various societies are here recorded.

MIZPAH, or Drifting Away. By Mrs. M. McCullen Whiteside, 16 mo., pp. 142. A. R. Fleming & Co., St. Louis, Mo.

Mrs. Whiteside is better known to the reading public of the southwest by her *nom de plume* "Muriel." Mizpah is not devoid of merit but bears the marks of hasty work. There are some improbabilities in the story notably that a woman wholly unacquainted with stage life should take the place of a "Star," and retain it with continued success. Full-fledged tragediennes fresh from the ranks of the uninitiated are quite as rare as the literary "mythical prodigies," who "toil not neither do they spin," while editors go daft about them and bid up their wares with reckless disregard of the painstaking authors who have genuine articles for sale. There is evidence of pleased perusal of Hugh Conway's stories—in the ejaculations. It is a temperance story of marked type, and with decided leaning to the Roman Catholic faith, to which, however, we will not object.

COMMON SENSE IN THE POULTRY-YARD. J. P. Haig, 12 mo., pp. 192, Industrial Publishing Co., New York.

The writing of this book was a kindly act in the interests of many who are perplexed as to the best methods for increasing a limited income. The perusal of these pages should enable the careful poultry man to avoid many needless expenses and disheartening failures. The adoption of Mr. Haig's "economical dodges," as he facetiously calls them will prove advantageous. It is a pleasure to recommend books of this class; their simple, straight-forward common-sense instructions are taking. In brief, it is a record of the failures, successes and experiments of an ingenious, persevering man, in a pursuit that the average man or woman can follow.

COMPLETE PRONOUNCING MEDICAL DICTIONARY with Appendix explaining Latin terms and phrases, etc. Price \$5.

PUBLICATIONS RECEIVED.

THE KANSAS CITY (MO.) REVIEW.—Recent numbers show marks of progress in this independent and useful organ of western scientific research. The change of type and distribution of subjects are improvements.

OUR LITTLE MEN AND WOMEN.—January number is as appropriate as ever in type, subject and illustration for little people. D. Lothrop & Co., Boston.

THE HOMILETIC REVIEW (New York), January, is of respectable thickness, and considers some practical questions in a symposic fashion, viz:—Modern Biblical criticism, and the “new theology” that modern criticism has made a necessity. The different departments supply a variety of aids to the average minister.

THE GRAPHIC, of Cincinnati, is improving in its quality of literature and illustrations. Our Eastern illustrated weeklies have a powerful rival in this bright and original publication.

THE MANUFACTURER AND BUILDER (New York), comes as usual with its large pages filled with current matter, relating to the subjects within its spheres.

NINETEENTH ANNUAL REPORT of the Home for Incurables, in New York City. A very full showing of a year's work in an excellent charity.

THE PHRENOLOGICAL MAGAZINE (London), has become well established, and is evidently growing in the esteem of English people. Each number contains a list of subjects that are reasonable and attractive. L. N. Fowler, Publisher; Alfred T. Story, Editor.

THE FORTNIGHTLY REVIEW (Authorized Edition); **THE CONTEMPORARY REVIEW** (Authorized Edition). These well-known English periodicals are re-produced by the Leonard Scott Publication Company, of Philadelphia, at 40 cents a copy, or \$4.50 a year each.

The November–December number of **CHRISTIAN THOUGHT** has a paper by the new Vice-Chancellor of the University of New York on “Kant and Lotze,” showing the progress of philosophical ideas during the century. Dr. John B. Drury's paper is on the “Relation of Truth and Time.” It will

attract attention. “Christian Socialism,” and “The Family in the History of Christianity,” are worth perusal also. William B. Ketcham, Publisher.

The January number of **LIPPINCOTT'S MONTHLY MAGAZINE** appears, as was promised, in a new and handsome cover, and large clear type. Among the most notable are an article on Civil Service Reform, by Gail Hamilton, and a collection of criticisms, by George Eliot, upon Dickens, Carlyle, Kingsley, Browning, and others of her great contemporaries. A serial story entitled “Taken by Siege,” shows up a good deal of New York life. Scientific and literary bits add much to the interest of the reader. We congratulate the publishers on the change.

THE JOURNAL OF RECONSTRUCTIVES. A new Candidate for public favor, treats of dietetics and alimentation semi-technically, and is an advance in the average medical magazine. W. T. Wood, Editor: New York.

CURRENT EXCHANGES RECEIVED.

THE KEYNOTE, Music, Drama, etc, New York; **The Chemical Review**, Chicago; **The Dental Cosmos**, J. W. White, M. D., D.D.S., New York; **Frank Leslie's Popular Monthly**, New York; **Musical Journal**, Thomas Brothers, Albany, N. Y.; **The Critic**, J. L. & J. B. Gilder, New York; **Building**, a Journal of Architecture, New York; **Le Progrès Medical**, Paris, France; **Scientific American**, Munn & Co., New York; **Youth's Companion**, Perry Mason & Co., Boston; **The Day Star**, A. Delmont Jones, New York; **The Illustrated Catholic American**, New York; **The Christian at Work**, J. N. Hallock, New York; **The American Inventor**, J. S. Zerbe, Cincinnati; **Rural New Yorker**, New York; **The Independent**, New York; **The Christian Advocate**, Phillips & Hunt, New York; **The Country Gentleman**, Luther Tucker & Son, Albany, N. Y.; **New York Tribune**—weekly and daily; **The Western Rural**, Milton George, Chicago; **The Medical Brief**, J. J. Lawrence, M. D., St. Louis, Mo.; **Cook's Excursionist**, London and New York; **American Medical Journal**, George C. Pitzer, M. D., St. Louis; **The St. Louis Photographer**, Mrs. Fitzgibbon Clark, St. Louis, Mo.; **The Church**, A. A. Marple, Philadelphia; **Am. Missionary Review**, Independent and active, R. Wilder, Princeton, N. J.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 82. 1886.

NUMBER 3.]

March, 1886.

[WHOLE NO. 567.]



PROF. EDWARD SUESS.

IN this portrait we see animation, enthusiasm, sensitiveness, excitability, and a zealous earnestness in whatever he thinks is true or valuable. The head appears to be rather light behind the ears, but the lines running from the

opening of the ear to the anterior and upper parts of the head, seem to be long, showing that he is decidedly intellectual. He has a quick and intense perception, makes himself master of all the facts within his reach as soon as possible, and

permits nothing to escape his attention that may interest his judgment or excite his imagination. He appears to have language enough to express his thoughts and to make himself not only an apt and successful teacher but to carry personal and moral force with his efforts. In other words he impresses people with the idea that he is naturally sincere; that he is honest in his ideas, and has become thoroughly convinced of the importance of the subject that he asserts to be true.

The upper part of the forehead being large, shows philosophic interest in subjects and ability to grasp their interior philosophy and relations. He is therefore much of the critic, detecting error, and flaw, and mis-statement, and erroneous argument.

His relish for the study of mind is one of his marked traits, and he would enjoy the study of mental philosophy. In fact he is obliged to philosophize on everything he touches; and since his own mental nature is constitutionally hungry for culture and mental stimulus, he will enjoy the philosophy of mind as much as that of any other topic.

He has large Imitation, and adjusts himself and what he does and says to the sphere in which he moves and to the people who come in contact with him. And he has also the elements of agreeableness, blandness, smoothness, and persuasiveness.

He has strong Spirituality, a dreamy sense of something richer, and better, and beyond the present attainment; hence he has, we think, unbounded faith in truth and in its just inferences.

He should be known as a benevolent and sympathetic man, cordial in his affectionate regards, courteous in his demeanor, affable, pleasant, and persuasive, and very intelligent in his presentation of subjects that belong to daily life as well as those that belong to the higher branches of thought and study.

We would not regard him as a selfish man. He may have a quick temper

and resent insult and injury, may be very sensitive as to his reputation, and rank, and standing, and prudent in his plans with reference to safety. We regard him as a cordial friend, would be a devoted lover, but his chief mental force lies in his logical, imaginative, inventive and creative range of faculties.

If he were connected with mechanism he would be an inventor. If he were connected with chemical or mechanical science, he would be ever inclined to push his investigation into new fields, and be likely to write his name where the space is clear and other names are not very numerous.

One of the most prominent representatives of geological science in Europe is Prof. Edward Suess, of Vienna. With his name, the solution of many geological problems is linked, and from his indefatigable disposition to labor can we hope for future rich fruits. In him we find not merely the discoverer, but also the earnest teacher, who amid absorbing scientific labor has found time to work with excellent results for the welfare of his fellow citizens as a representative of the community in the national parliament.

Edward Suess was born on the 20th. of August 1831, in London, where his father had been a clergyman of the English Church. How the family came to Austria we are not able to say. At the close of the year 1849, we find Suess a student at the University of Prague, and in 1850 he was in the Vienna University. At both places he pursued the studies of natural science, especially Geology and Mineralogy. As early as 1852 he brought out an independent geological work on Bohemian Graptolites, and became assistant at the Court Museum of Minerals in Vienna. His reputation as a naturalist was established in the following year through some important investigations in regard to brachiopods, which appeared among the proceedings of the Imperial Academy of Science, with the title "On the Brachiopods of the Kossen

Layers." This was published in 1854, and in the following year he produced his "Brachiopods of the Hallstadt Layers." These and other researches in Paleontology led to his appointment in 1857 as Professor Extraordinary of Geology at the University of Vienna.

In 1860 Suess published a comprehensive geological study entitled "The Soil of the City of Vienna, according to its Natural Formation, Condition and Relations to Popular life." This had quite a sensational effect, and drew general attention to the young scholar. It also had certain political effects; for in 1863 he was elected a member of the Vienna Common Council with which he was connected until 1873, and then after an interval of but one year he was again elected to a seat in the same body. Here Prof. Suess developed very useful activity as the Reporter of the Water Commission.

The great aqueduct which supplies Vienna with excellent drinking water from powerful mountain springs, and which has operated so much toward improving the healthfulness of the city, is in great part his work. It was opened in 1873, and at the ceremonies of the occasion Suess was honored with the freedom of the city.

In the meantime viz in 1870 he was elected for the Lower Austrian Landtag and served with fidelity; in 1873 Leopoldstadt, a district of Vienna, elected him for the Reichsrath, of which until now he has been an eminent member. Here he has shown power as an orator on the side of the Left, especially in the struggle against ultra-montanism, finding his historical information and natural sagacity of important service. Notwithstanding his municipal and state relations, which demand a great part of his time he has not permitted his interest in science to flag in any respect. General studies, and researches in special departments of science are mingled with his political work, and now and then some fresh publication shows clearly enough

that he is no superficial observer, but has ever in view positive results bearing upon new ideas.

He has made a special study of earthquakes; visiting Mount Etna in the spring of 1871 for that purpose, and two important treatises bear witness to his activity in this respect: "The Earthquake of Lower Austria," published in 1872, and "The Earthquake of Southern Italy," 1873. In these writings Suess indicated the new theory of earthquakes and established the first series of vibration lines by actual measurement.

These studies have led him further into the subject of mountain formation, with which the majority of all surface disturbances are associated. His book on the "Origin of the Alps," published in 1875, has especially sustained the modern theory of mountain formation. Through such investigations Prof. Suess prepared the way for the production of the great and comprehensive volume which he has given to science, viz "View of the World;" part 1, published in 1883, part 11, in 1885. Since Lyell's "Principles of Geology" that appeared in 1830, no similar work has appeared, Prof. Suess', however, may be said to be superior to that, for the reason that so much fresh information is contained within it, and besides for the first time a complete picture of the surface of the earth and its history is given; not only are the facts represented of a most elaborate nature, involving an examination into authorities of every kind, and a review of all parts of the earth, but the spirited method of Prof. Suess in presenting the facts, and the elevated literary style of the work in general make it one of peculiar excellence.

The wealth of its information, the great literary knowledge which was necessary to bring from all parts of the earth the proofs and authorities for the observations recited, the spirited boldness of this performance, and the fascinating style of description distinguish, in a great measure, the effort. In the

same work he demonstrates his views on the two components of surface change arising out of the contraction of the outer portion of the Earth, viz, tangential folding and vertical depression, with the utmost comprehensiveness, and defines in this connection also the later opinions on the fundamental reasons for the volcanic appearance of isolated elevations. He has shown

also the relation of natural history to geography, which forms a leading motive of the whole work. Among the smaller treatises that Prof. Suess has given to the scientific reader is one entitled "The future of Gold," published in 1877 as a resultant of a special investigation in which he pre-eminently took part in Novan, and which has furnished topics for discussion in financial circles.

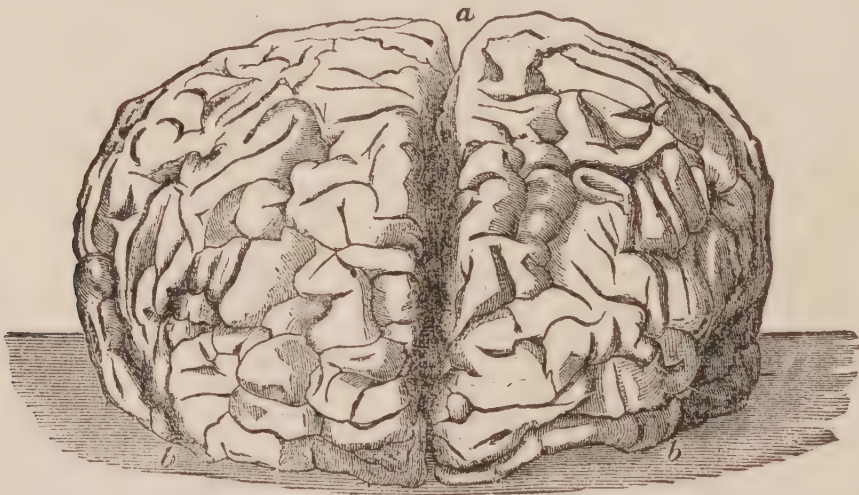
FAMILIAR TALKS WITH OUR YOUNG READERS—NO. 3.

EVENTUALITY AND TIME.

OUR last talk closed with Individuality and it is quite proper for us to go just a step higher in the front part of the brain, where we shall find an organ that is scarcely less important to all who wish to develop into well-informed men and women. I mean the organ of Eventuality. This must be a very interesting organ you will say, my young readers, after looking at the illustration of the three men who are having a pleasant social time together.

for them, and they want to know how it is that we accept so many "brain centres" in that part. Now, any one who has examined a real brain—one taken from the skull of a grown up person—knows that the frontal lobes are much divided and broken at the surface by fissures or openings, and this is seen to be the case at the parts over the eyes more than anywhere else.

I give you an illustration of the brain as it appears in a front view. If you count the little knobs or rounded swell-



BRAIN—FRONT VIEW.

But before describing Eventuality, let me answer a question that is often put by people who don't know anything about Phrenology, and appear to be unwilling to believe in its truths. They say that there are so many organs placed in the forehead, or frontal part of the brain in our diagrams, that there is no room

ings between the lines which represent the fissures or openings, you will find that the intellectual organs have plenty of "centres" for their accomodation, and room to spare. Nature seems to have divided up the matter in those rope-like folds or "convolutions" specially for the use of the mental faculties, and

there each presides like a European prince over a bit of country that he proudly calls "my dominion."

I have told you how Individuality acts, giving you the disposition to see the objects of the world, prompting the child to inquire, "What's this?" "What's that?" etc., and so leads the way to knowledge. It does not concern itself about what the things are doing, but simply about their existence. They are seen or felt or heard, and then the other faculties down there by Individuality, Form,

round, and they who have it well developed take a great deal of interest in historical events and the active life of society. They are fond of mingling in the tide of life in great cities, of going where "something is going on," as they say. And we find them at conventions, military reviews, anniversaries, etc. They can keep their information well, and if they have good Language can tell with ease what they have seen and read. Good story tellers have large or active Eventuality as a class.



A GOOD STORY TELLER.

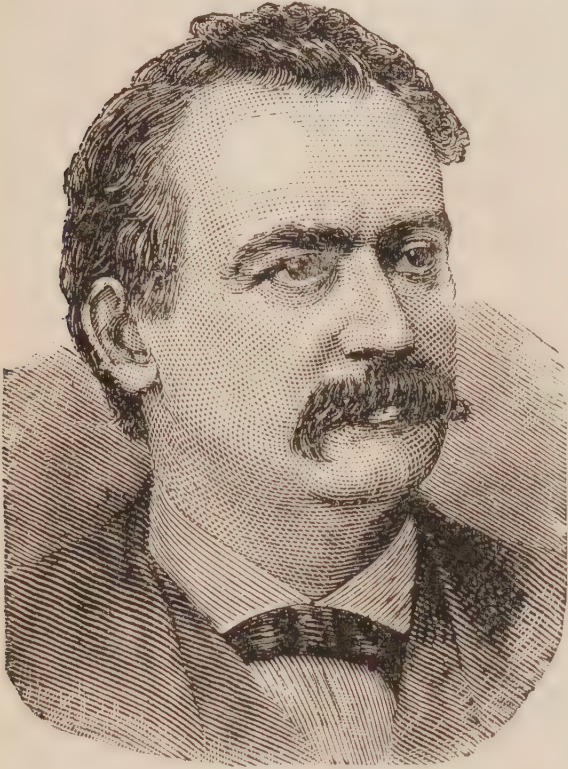
Size, Weight, Color, Order, Calculation, come in for their share of work, and each takes its particular measure of the object we are looking at, and it thus becomes known to us by certain qualities of its own. Now, Eventuality belongs to a grade of faculties higher than those we have just mentioned. It relates to the action of things, what they have done or are doing. Hence it is called by some phrenologists the historical faculty, although other faculties have something to do with history.

When Eventuality is large it makes the centre of the forehead look full and

As I look back to my school days I recall the boys who were great on stories and every one of them had large Eventuality. The man in the picture, who is relating with so much gusto the account that seems to have a striking effect upon his small audience, shows a good development of the organ, and also of the forehead in general, so that he is finely qualified to talk.

Among speakers the man who can describe nicely what he has seen or read is always attractive. And the books that are most read are those that deal with events and relate them with spirit and

grace. I have seen a little girl the centre of a delighted group of children to whom she was relating some occurrence of home or school. You have seen something of the kind, I know, and perhaps wondered what it was that made her so eloquent



GEN. MARTIN—TIME LARGE.

and winning. It was in great part her good Eventuality joined with a lively nature or temperament, and large Language. Among children girls as a class show more Eventuality than boys of the same age, both in the head and in their studies.

TIME.

We meet with persons who can describe what they see from day to day with much particularity, but forget names and dates. Dates with most of us are most trying to the memory. We may read an account of something that is very interesting and carry a general sketch of it for years in our minds, but the date will slip away in a short time. There are some people though who appear to be very happily gifted in this respect, they remember the date of a small matter without an effort, and when you speak of it will say, "That was on the 25th of October, 1874." Such per-

sons have the organ of Time very large.

This organ is situated in the head near the outer part of the forehead, and about half way between the eyebrows and the hair. When the forehead in that part is nicely filled out Time is large, and it would be an interesting experiment for you to try the boy's or girl's memory who appears to have the faculty strong. If they are studying history, say of the United States, you could ask when certain battles of the Revolution were fought, when some of our large cities were founded, and about the times of the Presidents, and other important things that it is well for the intelligent youth, who expects to become a good and useful citizen, to know.

The portrait of Gen. Martin shows Time well filled out, and so does the portrait of the eminent statesman, Richelieu, who in the time of Louis XIII. of France, helped so much to make his nation great and powerful. The king was a weak capricious man, fond of pleasure and caring little for government, leaving that almost entirely to Richelieu who was at the same time a Cardinal of the Roman Church and the Prime Minister of France. Richelieu was almost all the



CARDINAL RICHELIEU.

time in trouble with the nobility, who did not like him, and very often Louis XIII. himself, was his enemy, because the-

Prime Minister would not favor his foolish whims of personal gratification. Few men who have lived have shown greater skill and dexterity in public affairs, especially in managing very difficult and mixed-up affairs than Richelieu. He must have possessed a remarkable memory to do what he did—as it is said he never forgot the faces of people, and often to show that he had not forgotten a man who had once been in his service, or whom he had seen, he would mention some trifling thing that the man had done.

who can sing well and keep time in jumping the rope or dancing ; and the boys who show unusual promptness in going through the gymnastic exercise or military drill have it large.

In some lines of business the observance of Time is very important. On railways, in the post offices, in telegraph offices, the clerk who can get along best has this organ large. You may depend upon it that the boy who always goes promptly to his work, who performs his errands with dispatch, believes in being “on time.” Such we may consider the boy in the



THE MESSENGER BOY—IMPORTANT !

They who have this faculty strong are disposed to be prompt in keeping their engagements, and live in a closer relation to the work of every day than others. School children blessed with good Time, not only remember the dates in lessons, but are attentive to the clock in the morning when it is near the hour for going to school, and when it is near the time for dismissal. You may be sure that the tardy, indolent ones who come straggling in after the bell has been rung, are not large in Time. Generally those girls

illustration. He has been given a message and is off to deliver it, thinking that it is a matter of great importance. And it is a matter of great importance, my young friends, to do what you are charged with in good season. Your Time may be moderate, but you may cultivate and strengthen it, just as you could make your arms stronger by exercising, so that it will be of better service to you, and help in making life even, orderly and successful.

EDITOR.

ESSENCE OF ORATORY.

[Report of an address before the Philadelphia School of Oratory. Delivered by W. M. Taylor, D. D.]

ELOQUENCE is the uttering of conviction or emotion, so as to produce conviction or emotion in the hearts of those addressed. Eloquence existed before rules. As speech existed before grammar, oratory existed before the object of the study. The eloquence of Judah pleading for Benjamin in ancient days, has thrilled hearts through centuries. Anatomy is not life, but anatomy shows us the channels of life, and teaches us how to live better; so rules are useful in the study of eloquence. There are three factors to be considered, matter, manner, and spirit. The subject matter, in the first place, is important. Logic, invention, reason, fallacies, and the like must be understood by the student; so also, in the second place, is style important; illustration, rhetoric, elocution, all that is comprehended in the term eloquence. But the third factor, the spirit of the man is most important; it is that which lifts up the matter and the manner, which moulds the man and his matter and adapts them to the occasion. The subject matter may be cogent and the form may be excellent, while the spirit is absent. On the other hand, the speaker may be in his presence base; his diction may be uncouth, and yet he may carry everything before him. It is the spirit that gains the victory. The first and second factors, some speakers seem to possess from the start. Their elegance of diction and manner seem to be habitual and automatic, just as one who has learned to walk, naturally turns out the toes, and does it without thinking. If one acquires the art of eloquence late in life his style may become mannerish and stilted. "A little knowledge is a dangerous thing;" it is apt to make one self-conscious. A man himself must be lost in the purpose he has in view; self must be kept out of sight.

On one occasion an orator lost his point in trying to correct an ungraceful gesture of which he had been told. The man is to the matter as the powder is to the ball; but the spirit of the man sends the ball to the mark. What is this spirit? It is a question hard to answer; very much like the question, "what is life? Our answer is apt to be as vague as that of the German philosopher, "Life is the *ego* of organism." Our work, however, is simply to recognize, to nourish, and to train life. It is all that we can do, and so it is with eloquence. Yet patience may help us. Eloquence is that which enables a man to see the occasion and leads him to say the right thing. It is something like the genius of a poet or painter. Eloquence does not belong to all, it is rather a gift from God; it cannot be imparted, though it may be cultivated.

We are reminded of the question put to the painter Opie, "Pray sir, what do you mix your colors with?" "BRAINS" was the laconic answer. And so it is in the study and practice of eloquence. Life is before organization, but organization does not produce life; training does not make an orator; but an orator may be benefited by training.

The first requisite of eloquence is a good character; any lack here will put the speaker at a discount. You may abstract a picture from the painter's character in your thought. Not so with oratory; the orator is powerless if you know him to be insincere in purpose or immoral in character; but if he be known and read of all men as a pure and disinterested man, his language bears "the accent of conviction." His character is related to his speech as a reflector to a lamp, it widens the area of illumination and intensifies the lustre.

A second factor of eloquence is a cause worthy the employment of eloquence. Some men exhibit a great deal of feeling in a discussion which requires no

emotion ; it seems like an ocean tossing a feather ; but it is a grand thing for a man to rise to the occasion when the occasion itself is suggestive and inspiring. We may account for the paucity of orators in our age from the fact that there has latterly been nothing great to call that power out. In the early ages of Christianity there were occasions to develop eloquence, and so we may say that Christianity made the dumb to speak. So it was in the age of the German and English reformations ; in the days of Athenasius, Luther, Knox, the two Pitts ; in the days of the Anti-slavery excitement in this country, at the time of the rupture of the Scottish church. All those causes were worthy of the most impassioned eloquence, and orators were then brought to the front.

A third factor is the conviction of the importance of the orator's cause. He perceives its urgency ; he cannot but speak ; it is impossible for him to repress utterance ; what he has within must be said ; he must say it and he must say it now. With some people eloquence is "nothing but roaring." If one is unsettled in his convictions let him at least be silent, for doubt is infectious, especially is it so when doubt is uttered by men of high integrity.

The fourth factor is a great occasion. The orator is raised to the occasion in part by the audience. Steam is generated and it carries him on. It stirs his soul within him. A faltering fireman was once stimulated, as he lifted the ladder to the falling wall with fear, by a shout in the street, "Give him a cheer." The cheer was given, and it inspired his effort, and led him to save another human life at the risk of his own. So applause will bear up the orator as water bears the bark.

Gladstone's remark is a vivid one. "The orator gets in vapor what he gives back in flood." Even if the audience be hostile to the orator, their opposition becomes an impulse, because he is then put on his mettle ; he acts like some wary

athlete who measures his antagonist and fences a little, at first, giving here and there a light stroke, but finally rouses all his powers, presses on to victory, and stands supreme. Eloquence can not be carried about, bottled up ; we need all these factors to develop it. The orator must be a man of unblemished character ; he must possess a cause worthy of his power ; he must be possessed of the conviction of the importance, the urgency of that cause, and he must have a great occasion both to develop his eloquence and to rouse the audience before him.

That was a ludicrous request which a gentleman who had entertained Henry Clay at his table made of the great orator after dinner : "Won't you now, my dear sir, please to make me and my wife one little speech ?" Henry Clay needed the Senate, he needed the occasion, he needed a grand theme to develop this spirit of eloquence.

We infer from this subject as thus outlined, that orators must be rare. Still, we should be ready for any occasion, and chances are always ready for those who are prepared. Cultivate, then, the gift that is in you.

Paul said, "I am debtor to Græek and to Jew ;" so he tried to repay the debt that he felt he owed. We are debtors to God, to our country, and to the church ; let our lives be eloquent if we are not ourselves orators ; let us thus secure the reward of true eloquence, entwining with its laurels the white wreaths of purity and truth.

"His full life, brimming purely to the sea, reflected heaven as clearly when it mingled with the main as when it ran, a limpid rivulet from its spring. Young and old, man and boy, he was still the simplest, noblest, most devoted, best. He truly was the man that every thoughtful man secretly wishes he might be. Those only know this who knew Francis George Shaw."

G. W. C.

THE CONIFERÆ.

IN the early morning of the vegetable world, before the rose had diffused its odors, or the lily unrolled its spotless perianth, before the birds sang, or the boundaries of Eden were placed, the great family of Conifers stretched aloft their verdant arms, and distilled their resinous odors upon the new earth. Geology disentombs them from their deep sepulchres in the Devonian formation, and there, in those long sealed annals, we read of their early life and formation. The stony pages reveal their hoary antiquity, and also their importance in the pre-Adamite world. Unlike the ferns,

ever vigorous, long-lived, useful and numerous.

In all the great climatic changes, this family has clung to the earth, adapting itself to its surroundings, and defying the cycles of time to lay it in the deep sub-strata, where so many of its congenitors have rested for long ages. This family embraces nearly all the evergreen forests of the Northern Hemisphere, and is distinguished for the resinous secretions of the different species. It is also invaluable for timber. The pine, the fir, the hemlock, cypress and juniper are among the most common species. The aroma of the resinous exudations is very pleasant, but the foliage and fruit, with few exceptions, afford no food for man or the lower animals.

The conifers are styled *Gymnosperms* from the peculiar arrangement of the seeds, which are unprotected by capsules or carpels, and lie open within the scales of the strobile or cone. These seeds are furnished with a thin transparent appendage or wing, and when the frost opens the scales of the cone, the wind bears the seed to some mountain side or deep glen, as well as to the highways of man, there to nestle, till the sun and dew calls it to life, and hangs a green crown for centuries where the wind-borne seed fell.

The conifers particularly delight in mountainous situations, *pine* being a Celtic word from pen, mountain or rock. Aside from their persistent and perennial beauties, the cone-bearers possess many sterling qualities. From Maine to New Zealand, the pine is utilized for building, and the wood of many of the varieties is highly ornamental.

The accession to the United States of the territory that embraces California and New Mexico, and the opening up of the vast region between the Rocky Mountains and the Sierra Nevadas have discovered to the botanist many wonderful forms and developments of the vege-



ITALIAN STONE PINE.

their usefulness has outlasted the ages of man's creation, and the recent changes upon the earth. The fragrant amber, which has been used from time immemorial, for personal adornment, is the petrified resin of the Coniferae of former ages which flourished where now are the lake beds of Central Europe. Through all the succeeding epochs of change, the conifers have asserted themselves among the families of vegetation,

table kingdom, none of which perhaps are more interesting than the various conifers. About fifty of the three hundred known species, are found in the United States, those of the Atlantic and Pacific slopes having each their distinguishing features.

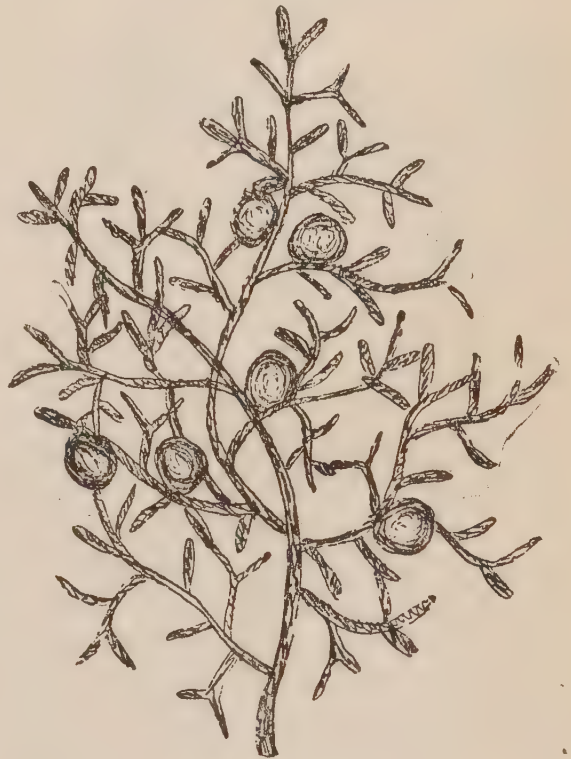
To California is due the honor of producing the giants of the forest world. In 1852 a party of hunters discovered in the valley of the Yosemite a grove of pines so gigantic that the tales they told of them were regarded as wild fables, until confirmed by the surveyor's measurement. A section of bark taken from one of these trees for the world's exposition at Paris was one hundred and twenty feet in length and ninety feet in circumference, and the tree from which it was taken was, when standing, three hundred and twenty feet in height. The vandalizing spirit of the nineteenth century at once seized upon these ancient monarchs of the vegetable kingdom, and many of them were destroyed before the law was made available for their preservation. Soon after their discovery, five men undertook the task of leveling one of these monster trees, and it required twenty-two days continuous labor, with the aid of pump augurs to accomplish the work. The stump of this tree was afterwards enclosed and used as a ball room, giving a circular hall ninety-six feet in circumference.

The greatest measurement given of the trees of this wonderful grove, was a pine *four hundred and fifty feet* in height the trunk ten feet above the ground, measured *one hundred and twelve feet* in circumference. About one hundred of these great trees were found in an area of about fifty acres, they were, and what remains of them are, unsurpassed by any forms of vegetable life in the known world, if we except some of the gigantic forms of *Algæ*, or marine plants existing in the tropic seas. They certainly exceed in size all other forms of tree life.

These giant conifers of the west were

not wide spreading like some of the eastern pines, but a straight trunk, bald and rugged two-thirds the height of the tree, surmounted by comparatively meagre limbs, scattered and straggling, terminating in a conical apex as their distinguishing feature. They were adapted to resist the storms that have opened the mountain canons, sweeping down the mountain sides, during the centuries of their life and growth. These trees existing to-day, were green and growing before the Norsemen sailed to Vineland, or the sagas of Iceland were written. Northern Europe is also clothed in verdure by its cone-bearing evergreens.

From the pines of Norway were wrought the Vikings' ships, whose incoming prows Charlemagne wept to see,



JUNIPERUS LYCIA.

as he looked out from his beloved Paris. The timber of the coniferæ is highly prized in architecture. The pine forests of Europe are almost limitless in extent. It is estimated that in Russia alone two hundred million acres are covered with pine and fir forests. The Gulf of Bothnia is framed in these evergreens, and the Swiss mountains are clad in verdure by the same family of trees.

Pitch, turpentine, resins and various balsams, are among the products of the cone-bearers, and the ancient nations of the East understood the art of extracting these products from the pine and its allies as perfectly as do the moderns now.



CUPRESSUS SEMPERVIRENS.

During one of the European wars, when the ports of the Baltic were closed, some fertile brain devised a plan to utilize the pine forests on the mountains above Lake Lucerne in Switzerland. An inclined plane, formed of many thousand pine trees, upwards of eight miles in length, and extending from the mountain side toward the lake, was constructed, and along this novel causeway which was kept thoroughly moistened, the pine trunks were swiftly conveyed. Pines one hundred feet in length would accomplish the journey in about six minutes.

The Stone-pine is found throughout Italy. Its dark foliage and prominent outline commend it to the artistic notice of the painter, and the tree forms a constantly recurring feature of the

Italian landscapes of Claude Lorraine and other celebrated artists. In the countries of Asia Minor are found several distinguished members of the coniferae. The Lycian juniper—*Juniperus Lycia*—contains the green olibanum, from which the frankincense of old was obtained. The eastern magi bore gifts of frankincense to Bethlehem, and this aromatic product of the eastern juniper was a worship ingredient of the incense of the Jewish temple. The Greek fishermen hold many superstitions concerning the wood of this tree, and believe that the light of its fires are more efficacious to attract the fish to their nets than that of any other wood. The cypress—*Cupressus Sempervirens*—is a common denizen of the countries of the Levant. Among the ancients this tree was particularly devoted to the service of the dead. Those olden nations that did not burn their dead, buried their wise men, chiefs and heroes in cypress-wood coffins. This wood rarely decays, and Egyptian mummies in closed in cypress-wood cases have remained in their undecayed covering through the ages. The classic nations planted the cypress above their dead, and used the branches as emblems of mourning.

“Meantime, o’er his own porch the
withered cypress hung,
From his high halls a cry of anguish
rung,
Woe for the dead, the father’s stricken
flower.”

The *Astragalus Creticus*, though not a conifer, is a gum-bearing tree of the remote Mediterranean Islands, Cyprus, Crete and others. Its most valuable product is the tragacanth of commerce. Again crossing the ocean we find in the conifers of the Atlantic slope an exceedingly beautiful and valuable family. From the balsamic reservoirs of the various species, the pitch and turpentine in common use are distilled and the graceful beauties of these trees adorn the

pleasure grounds of wealth, as well as the distant mountain side, and lonely ravine.

The *Abies Americana* is, perhaps, the most beautiful and valuable of all the species. The deep purple cones, and leaves from one to two inches clustered

The Sacred Writings refer to various individuals of the conifer family and recognize their lofty and perennial beauties even as adorning the sanctuary of the Most High; and the beautiful customs of Christian lands call in the evergreen loveliness of the pine and its cogenitors.



ASTRAGALUS CRETICUS.

upon the sides of the horizontal branches combine with the lofty slender trunk to render it an object of rare and graceful beauty. The wood is the most valuable of all the pines, being heavy, durable and strong. The deciduous leaf is another distinguishing feature of this most valuable of all American pines.

to glorify the Christmas time. From prophet and bard of Holy Writ, from the rock-bound archives of geology, as well as from written history, and from their green lives and growing tissues of to-day we learn of the habits and varied uses of the coniferæ.

ANNIE E. COLE.

INDICATIONS OF CHARACTER IN HANDWRITING—No. 6.

IN this, and the following article, I propose again discussing the alphabet, but this time to point out the character indications contained in the various forms of capitals.

Any superabundance of flourish in a capital displays an egotism and conceit that mars the beauty of an otherwise almost perfect handwriting. The flourishes of an ordinary writing master disclose the fact that he is peculiarly adapted for that work, but for very little else. And it is a rule that can almost be laid down as absolute and positive, that the simpler and plainer the capital, the higher

is the order of intelligence and refinement possessed by the writer.

First, we have the capital letter "A" from an autographic copy of "The Cotter's Saturday Night"

No. 1.

by Robert Burns, the Scottish Poet. It is a most harmonious letter, its proportions being almost perfect. Simplicity and sense of beauty are revealed, combined with will strongly marked, in the firm line which crosses the letter. Had the capital taken this graceful form with a loop to cross it, the letter would have still been typical of poetic facility, but there would have

been less force to it. Every capital "A" throughout this long poem is formed in exactly the same manner.

The second illustration is from the signature of Albion W. Tourgee, author of "A Fool's Errand," "Bricks without Straw" etc. A small "a" used as a capital, typical of a high order of intelligence. In its nicely rounded curve, grace and simplicity are shown. Sequence of ideas is revealed in the ready flow of the stroke leading on to the following letter.

No. 3, from the autograph of J. H. Merle D' Aubigne, author of the celebrated "History of the Reformation," in-

icates nervous energy, and ardor, as shown in the failure to join the top of the letter. Simplicity and native dignity of character in the unpretentious outline, the using of a small letter as a capital being typical of the highest order of intelligence. Force is in the firm down-stroke.

No. 4. Is from a letter of an insignificant person. Here are pretension and want of grace shown in the affected and ridiculous flourish of the loop, which

crosses the letter; a certain amount of imagination and movement in the mind, but an imagination not likely to bear good fruit, being so little guided by good taste.

The letter "b" is of more frequent occurrence than the letter "a" at the commencement of a sentence, and there is a greater variety in the forms which it takes; therefore, more illustrations of this letter will be given.

The capital "B" (5) occurs in the autograph of Sir Samuel Baker, the au-

thor and hero of those attractive books of travel that have brought Ceylon etc. home to our doors. Originality, as shown in the eccentric form of the let-

ter, the base being so disproportionate to the head; great tenacity of purpose and strength of will revealed in the striking angles of the letter.

6. The Capital "B" of Bayard, U. S. Senator from Delaware. Very similar in

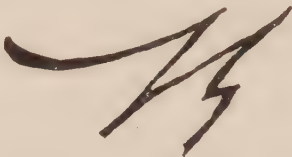
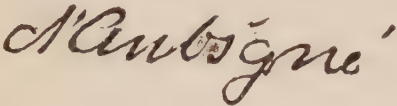
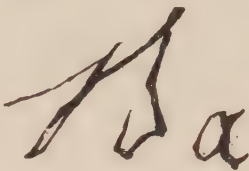
some respects to the preceeding. Strength of will and marked economy are shown in the abrupt terminal.

7. From the autograph of Lord Byron. Strength of will, dogmatism and impatience of contradiction or restraint are

shown in the angular lines and in the sweeping upstroke. Great tenderness in the sloping lines, and sequence of ideas in the running of the terminal loop into the next letter. Originality in the bold and peculiar form. Generosity and a lack of finesse in the breadth of the letter and the final loop are both clearly indicated, and the whole writing fully confirms these indications.

8. Henry Ward Beecher's. Considerable grace and artistic refinement appear in the flowing curves.

An easy energy that can accomplish much, and at the same time convey the idea that it is done without effort, is clearly shown in the bold though gentle strokes of the letter. Openness of disposition in



the width of the letter, and a steady thoughtfulness and sequence of ideas in the understroke leading on to the next letter.

9. From a Frenchman's letter. A great deal of pretension, conceit and affectation, as shown in the numerous flourishes; but a certain kindliness and easiness of temper are denoted by the rounded forms.



9.

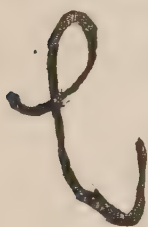
10. Buckle, the historian, from his signature. Absence of affectation, much cultivation and extreme clearness of ideas, shown by the simple form of the letter—the absence of all flourish.



10.

Too great importance can not be attached to the capital letter "C," as it lends itself to indications of vulgarity, pretension, exaggeration and vanity more than most letters.

11. Is from the autograph of R. Gordon Cumming, the great lion hunter and adventurer. It is an inharmonious letter, wanting in proportions, yet revealing in a marked manner imagination, and ardor, activity of mind, strength of will and vivacity.



11.

12. From the signature of Christopher Wordsworth, Bishop of Lincoln, England. There are taste, cultivation, intelligence and simplicity in the graceful curve and utter absence of flourish. Generosity in the fullness of the letter, and sequence of ideas in the easy flow of the pen into the next letter. Ardor and imagination in the boldness of the sweeping upstroke.



12.

13. From the signature of Thomas Cooper, the lecturer and poet. A letter worthy the author of "The Purgatory of Suicides" and "The Paradise of Martyrs." In its plain, rigid simplicity, a high order of intelligence is shown. Tenacity of purpose in the angular shape

at the top. The remainder of the writing indicates much originality and poetic grace, combined with an excess of nervous energy and susceptibility.



13.

14. From a letter from a lady, a third rate musician, who imagines herself a second Malibran. Unbridled imagination, with insufferable affectation and pretension. The rest of the writing in the letter is in the same style, without one redeeming feature.



14.

The capital "D" reveals all the pretension, etc. that can be expressed in the letter "C," as it affords scope for an immoderate amount of flourish, a sure sign of affectation, conceit and vanity.

15. Is from the MS. of "The Poet" by William Cullen Bryant. Wonderful grace and poetic ardor shown in the almost perfect contour of the letter. The fact that the curve covers the downstroke is a strong indication of an imaginative mind held in perfect restraint. The ardor is thus under control. Yet



15.

it is there in sufficient force to be itself a controlling element, but so combined with grace and refinement that it could not possibly offend by vulgarity or conceit. A most beautiful and harmonious letter, significant of a most beautiful and harmonious character.

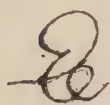
16. From the signature of Rev. Roswell D. Hitchcock, D. D., President of the Union Theological Seminary, New York. Energy and firmness are in the bold downstroke. Grace and refinement with a cultivated intelligence are shown in the simple form and easy curve at the base of the letter. Careful thoughtfulness and thoroughness are revealed in the positiveness of this curve.



16.

The capital "E" like "C" lends itself to an exposure of any vanity or conceit that may be possessed by the writer, although not in so large a degree as some other letters.

17, is from the signature of Frances E. Willard, President of the Women's Christian Temperance Union. Originality is shown in the peculiar form of the



upper loop, self-reliance in the firm down-strokes, while energy, sequence of ideas and readiness of utterance, com-

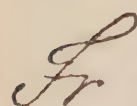
17. bined with poetic ardor are expressed in the graceful manner of uniting this letter to the preceding ones and following it.

18. From the autograph of Maria Edgeworth, the popular writer of an earlier generation, "The mother," as she has been termed, "of Sir Walter Scott's novels." Grace simplicity, refinement and culture revealed in the plain, simple capital. Poetic and æsthetic tastes are clearly shown in the graceful curves. Extreme lucidity of ideas in the clearness of the letters. Freedom from any trace of egotism, affectation or selfishness are also shown in the sloping lines, in their modest firmness. One of the most beautiful and expressive letters ever penned.



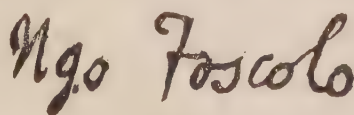
The letter "F" is of less frequent occurrence than "E," yet considerable character is revealed in its construction.

19. From the signature of Sir John Franklin. Poetic grace in the elegance and ease of the curve, tenderness in its slopes, refinement and gentleness in its simplicity, are the leading characteristics of this letter while in



19. characteristics of this letter while in

20. From the signature of Ugo Foscolo, the eminent Italian writer. There are originality, economy, firmness and tenacity of purpose revealed in the simple and original capital. In Franklin's sig-



20.

nature the ardor of his nature is strongly expressed by the striking upstroke, while in Foscolo's it is shown combined with nervous energy and somewhat of im-

patience in the hurried upstroke used to make the bar of the "f." The idea is borne out by the main body of the Italian's writing, while on the other hand the indication of economy is contradicted, inasmuch as the letters are well apart and fully made. Great lucidity of ideas is expressed in both of these writings.

21. The capital letter as seen in the signature of the Statesman, Charles James Fox. Originality, imagination, and a certain lazy indifference in the rounded curve of the flying stroke at the



top; had it been angular it would have been simple vivacity and ardor. Most of the terminations in Fox's handwriting have these

21. curved terminations, types of a sort of kindly indolence of nature, unless corrected by ascendant lines, which in Fox's writing is not the case.

22. From the MSS. of Gray's epitaph, written by and for himself. Ardor, poetic grace and a refined imagination are shown in the graceful upstroke. A careful thoughtfulness and consideration are in the



22. extreme care with which the letter is made, and sensitiveness is shown in the sloping lines so fully brought out in the remainder of the writing.

REV. GEORGE W. JAMES, F.R.A.S.



HOW WOMEN SHAKE HANDS.—A woman's hand-shake is always a study, for if it be loose or faint it indicates a selfish nature, or at least an indifferent one, and if it be strong or masculine, it evinces great openness of heart, and one too, given to hospitality. These facts are so apparent to observers that they are at once conceded. The medium grasp is the true womanly one. But what of the hand itself? An exquisite little hand, soft and white, and neither long nor short, argues fine sensibilities and a gentle, wifely soul. It is the kind of hand that the Sir Walter Raleighs, Crichtons and other chivalric men would delight to kiss. Lean, little, angular Queen Bess

had no such hand, but Mary of Scotland, according to Robertson, had. A short, full hand is Queen Anne-like, and the symbol of much child-bearing. Anne had eighteen children. Queen Victoria owns such a hand. A long hand and a long head go together, and to which may be added genius if the fingers are tapering, yet somewhat large at the joints, and the veins quite full and prominent. The osseous formation is plainly seen through the tightened skin of such hands. Large hands tell of a generous,

but a coarse nature. Joan of Arc, extolled by Miss Cleveland in her essays, must have had such hands to have wielded the sword; so must have had Charlotte Corday, who stabbed Marat in his bath-room, for that was a genuine masculine act; so equally had Catherine of Russia. Those hands were antipodal to the hands of Mrs. Browning and Mrs. Norton, and one would say of Sappho. The chubby hands work fast, the long hands work slow and pains-taking, the large hand works heavily but effectively.

COMPOSITE PHOTOGRAPHY.

COMPOSITE photography has been but recently developed. Its object is to produce by photographic art a picture which shall show the features or development common to all the members of a class and subordinate those features which are less common. It is a fallacy that photography gives a perfectly truthful representation of objects, understanding by the term "truthful" a perfect agreement with reality. Photography can, when properly applied, produce truer pictures than all other arts, but it is not absolutely true. Straight lines in the object often appear as curves in the photograph owing to a defect in the lens. In the photograph there is often a greater contrast in light and shade than there is in the object. There are other errors also, but with care they can all be reduced to a minimum, and the picture produced will be truer to nature than can be produced by any other means.

To take a composite photograph of a class of men, the best course to pursue, is to take a picture of each individual in the same position, preferably full-face, and have the distance between the centres of the eyes on the picture exactly the same, regardless of the actual distances in the individuals. Placing these pictures exactly one under another and before the camera, we expose each for a fraction of the time required for all; and the superimposed impressions make one com-

pound impression when pointed from the negative in the ordinary way. A composite profile may be produced in the same manner, using the eye and the opening of the ear as the initial points.

If we apply this process to the study of Phrenology, we certainly will obtain some interesting results, and if carefully carried on, I think, practical benefit is to be obtained. Take for example the family resemblance; we know there is such a thing, and yet, who of us has not found it extremely difficult to name the feature, form, expression or combination of expressions that are common to each member of a family. I claim that by composite photography we get a picture of the family resemblance. If our composite picture is made from pictures of men in all walks of life, we get a picture of the average man. If we wish a picture of the average boy, take all classes of boys, the good, the bad, the quick, the slow, the bright, the dull. If we wish an ideal picture of a good, quick, bright boy, take a composite picture of such boys. Now take one of the bad, slow and dull boys, and the two pictures will show the difference between these two classes of boys as distinctly as pictures will show the difference between a locomotive and a steamboat. Certain boys are bright in mathematics and dull in language, and others the reverse. By composite photography we can determine the development for

each of these classes, and so I think, by taking photographs of men eminent in the various professions, we can make composite pictures which will represent the ideal head of the engineer, the astronomer, the anatomist, the scientist, the theologian, the naturalist, the banker, the merchant and the orator, and so on. If we wish to study the location of a particular faculty, we must take a number of men who are noted for that faculty, and the composite picture will show its position. Take Combativeness for example. If we make a composite picture of the combative engineer, anatomist, scientist, theologian and orator, the qual-

ities that make the engineer, the anatomist or the theologian will be subordinated in the picture to the one quality of Combativeness, and hence we will have a picture of Combativeness. The above is only speculation, and we need data to prove it. Here is a chance for some of my readers who are possessors of amateur photographic outfits of the better order, to devote their leisure not only to their own pleasure, but to the advancement of scientific knowledge. Darwin was willing to walk around the earth to gain one new fact, and here may be any number of facts within your reach.

F. R. B.

CHARLES STEWART PARNELL.

THE government of Great Britain is struggling with a problem that taxes the strength of her greatest statesmen to the extreme. Not within the past twenty-five years has a more critical situation occurred to her, one so full of grave issues, so revolutionary in fact. Ireland for nearly two hundred years, from the memorable battle of the Boyne, when she lost her independence, has been a "thorn in the side" of England, and it can not be denied by one who reviews the manner in which the affairs of the "green isle" have been administered by "cross-channel" authority that its mercurial people have had solid reasons often for their tendency to sedition, revolt and insubordination. England has governed her sister island with a strong hand—from necessity we are told, and rebellious expressions that assumed a dangerous character have been heretofore easily suppressed by the bayonet, but in later years the spirit of Irish freedom has assumed a new phase. It has assailed the lion in her stronghold! It has gradually acquired strength in the field of parliamentary discussion, and to-day it looms up before the English aristocrat and land-owner as a fateful Nemesis, o'er shadowing all other national interests.

The man who has been most prominent in the struggle, whose patient unwearying activity has been most influential in



CHARLES STEWART PARNELL.

bringing about the present crisis in British affairs is Charles Stewart Parnell. We look into his face, as given by the engraver, vainly for intimations of a blood-thirsty temperament, or of a na-

tural bias to malice. There is nothing of the rough or desperado about him—but he looks the quiet, orderly, courteous gentleman. His broad head possesses energy, his elevated crown shows determination and self-reliance. He certainly has a good degree of ambition and courage, but we should expect him to act in a sober even manner, rarely impetuously, by no means intemperately. His head shows the kind of intellect that appreciates facts, is competent to analyze them and to work out their effect in different combinations. Hence his judgments should be generally clear and sound, and win favor among those who know him. With such a chin, such eyes and nose—speaking physiognomically—he should be a self-possessed, steady-going, hospitable, generous man, and one more likely to overreach his purpose or mistake through his sympathies than in any other way.

Mr. Parnell was born in 1846 at Avondale, Wicklow county, Ireland. He is descended from an old English family that crossed over to Ireland years ago.

He was sent to various private schools in his youth, and completed his education at Magdalen College, Cambridge. On being graduated there, he took an extended breathing spell in the United States, and on returning home stepped to the front in his own neighborhood as a man of education, intelligence and spirit would be expected to, and in 1874 was appointed High Sheriff of his county. In the same year he made his first attempt to enter the arena of politics, and the next year he was successful in being elected a representative for the county of Meath; taking his seat in the Halls of Westminster, London. He was modest and quiet at first as be seemed a young member and a novice who wanted to look before he leaped. But in 1876 he took part with great earnestness in some stubborn contests with the Government over measures distasteful to the Irish representatives.

He became soon a leader of the “ob-

structionists,” and of the Irish or Home Rule Party. He was the organizer of the Land League and its first President. All projects having for their object the alleviation of the condition of the Irish people in connection with their rights of property have found Mr. Parnell a zealous co-operator.

He organized the National Irish Land League in 1879. Its objects were—a reduction of rents, and refusal to pay if such a reduction were refused; and finally, an entire change in the land laws, peasant proprietors to be substituted for the landlord, or in other words “to facilitate the obtaining of the ownership of the soil by the occupiers.” This organization has greatly promoted the growth of the Home Rule Interest.

In December of the same year, Mr. Parnell came to this country in order to raise money for the immediate relief of Ireland, prostrated with famine, and for the help of the new organization. He lectured in every large town in America, before several State Legislatures, and was permitted to address the House of Representatives at Washington, a privilege accorded but rarely.

Returning to Great Britain, he was elected for three constituencies in Ireland. At the reorganization of the Irish party he was chosen leader, and immediately set to work with a fervid zeal that has produced the bitter fruits now so distasteful to the controlling party at the seat of government. Of course efforts have not been wanting to suppress Mr. Parnell, but tempting offers and menaces have been alike vain. Pretext was found for his arrest and confinement in Kilmainham Gaol, in the fall of 1881, where he was kept for six months, and when released it was to find his cause the stronger. To-day his party in Westminster Hall holds the “balance of power,” and we have the spectacle of the two great British political parties—the Liberals and Tories entreating “despised” Irishmen for their support. It is our hope that Ireland will obtain justice.

MOTHER NATURE.

Universal Parent thou,
To thy law we humbly bow,
Glad obey thy stern command
Feasting from thy gracious hand.
False the fancy that thou art
Stranger to the human heart.
All thy blessings full and free
From the earth, the air, the sea,
Give us life, and health, and peace,
For thy bounties never cease.

Gentle sounds that float along—
Blending like some seraph song,
Coming from an unseen shore,
Breathing raptures evermore—
Do their mystic voices raise
To proclaim their grateful praise,

Beauty's Spirit, Angel Queen,
Is in thy dominion seen;
Springtime's dewy dampness shed
On the lily's lifting head;
Summer with its golden sheaves,

Autumn with its yellow leaves,
Winter's silver glories bright,
And the star-bediamond night,
And the sun's be-dazzling rays
Lighting up the fountain sprays;
And the rainbow's lovely form,
Creature of the sun and storm,—
Thus the ever-rolling year
In its glory doth appear.

Thou art Truth's incarnate whole,
And hast thou a conscious soul?
And canst thou in goodness feel,
Sympathy with human weal?

The fair pages of thy book,
On which we forever look,
Form the ages' horoscope,
Filling all our souls with hope
That there is a life above,
Full of tenderness and love.

CHRISTIAN CARRIGER COLLINS.

WAYS AND MEANS.

“WHERE there is a will there is a way,” is one of the old saw family, with which most of us made acquaintance very early in life, one for which our regard has been as variable as the circumstances by which we were reminded of it.

The sisterhood, whose banner bears the magical letters N. W. C. T. U., believes in this particular member of the old saw family, with “a faith beautiful to see.” Their committees of “ways and means” are backed up by the purpose to do good and the *will* to succeed. Those committees are frequently self-appointed and self-sustaining; very frequently it is “a committee of one” that ventures a new departure. With this prelude, I pray you listen to “a tale out of school,” it may encourage some one else to the “likewise,” of a good counsellor.

The *Union Signal* office located in Chicago issued an artistic and appropriate calendar for 1886, Miss Francis E. Willard's winning face adorns it, accompanied by her impressive sentiment—

“We wage our peaceful war, for God and home and native land.” The selections for each day have been judiciously made, from a wide range of excellent and popular authors.

A New York “committee of one” notably given to bright ideas, collected the necessary funds, purchased some Willard calendars, an equal number of Mark Twain scrap books, invited the co-operation of some other active members of the sisterhood and instituted a rather novel holiday excursion to “the Receiving-ship” and some others ships then lying in the harbor of New York.

The calendar was presented with the stipulation that it be conspicuously hung in the main cabin, and the boys be alternately detailed to keep the scrap book, and as the calendar shed its daily leaf of mental and moral gold, to enter each one neatly and in consecutive order.

Miss Julia Colman donated a set of “Freedom Cards,” and “Leaflets for young people,” which were to be inter-

dispersed between the months. The freedom cards, are marine views exquisitely gotten up with these words lettered against the sky :

Master of myself I'll be,
This at last is liberty ;
I proclaim to all around
Here true freedom I have found.

Free all good things to select,
Free all poisons to reject,
Free from pain and free from debt
Free all honest gains to get.

Free to ride, or row, or race,
Free to walk with sober grace ;
Free from pipe and free from bowl,
Free in body, mind and soul.

Free from claiming appetite,
Ruling all my habits right ;
Free to serve the God I love,
Free to seek my home above.

"A verse may find him whom a sermon flies," is the motto of the Union's holiday bulletin ; acting on that the "leaflets" give brief, interesting sketches of Ben. Franklin, Ayles, the champion sledger, Thomas Edwards, George Stephenson, and other eminent men whose successes were directly traceable to a pure and purposeful youth.

It was a busy, happy day for that party of ladies. Subsequent reports prove that it was "an inspiration" of the best order. It is a pleasant thought, that "Jack," away on the bounding billows will have the pretty reminder of "The waning of the days," toward the coming home, swinging on its appropriate blue ribbon to greet him every "day watch," and cheer him at "even time" if he grows lonely in his restless home, and at the end of the year there will be a Mark Twain treasure casket for future reference, which would gladden the heart of the genial gentleman whose *pseudonym* it bears.

The "ways and means" committee not only need to consider how and when to approach, that *erratic* animal—man, on their mission of love, but *how* to lay their soft hands on his heart without rumpiling his pride and raising the ambushed resentfulness which is always on the alert to defend his *liberty*. "Be ye wise as serpents and harmless as doves," said the great head of the Christian Union and the Leader of the White Cross Army.

A. E.

HIS WEAKNESS AND HER FAULT.

CHAPTER I.

BY MRS. M. L. BUTTS.

"WELL, I don't want Harry to be such a stiff old foggy as James is," said Maud Fay to her intimate friend, Grace Morgan.

"I don't see how you can call James an old foggy, especially a stiff one."

"Oh, now I have offended you ; forgive me, dear ; I didn't mean to."

"Of course I forgive you ; nobody could help it when you ask in that bewitching way."

"You couldn't help forgiving anybody."

"I should find it very hard to pardon Harry, if he shouldn't make you happy."

"Pardon Harry, if he shouldn't make me happy ! Now Grace, that is a little too much. Harry can't help making me happy ; you know he loves me dearly."

"And yet Maud, darling, there have been men as tender, and generous, and loveable as Harry, who have wrecked their own lives and the lives of wife and children. I will speak at the risk of making you angry, and you shall listen. Harry is brilliant and talented, and has great social power ; but Maud you know he can not resist when certain strong influences are brought to bear upon him ; he confessed to me that he can't get away from the fellows when they urge him to this or that excess."

"Oh, that will all come right when

we are married ; I can do anything I please with him, he says I can."

"Maudy, I wish I could make you see that a man must control himself, or he will never be permanently controlled."

"But, I am himself, so its all the same thing. Now don't frown ; you can't make a philosopher of me, nor of Harry ; I'm not afraid so long as we love each other."

"But if Harry should turn out a weak, irresponsible man, he would be quite different from the ideal you love and what would happen then ?"

"Oh please Grace, have mercy. I'll stop your mouth with kisses, and then you can't say such horrid things !" and Maud put a pair of very white, dimpled arms around Grace's neck and stopped the obnoxious words.

"Well Maud, I won't say any more this time," continued Grace as soon as the sweet pressure was removed. "You must try life for yourself, and may God help us all ; but remember this : God helps us through the powers he has given us. The kind and abundance of that harvest is according to the wisdom and vigor, exercised at seed-time."

"How admirably you and James are suited to each other," said Maud, shaking out the flounces of her pretty blue muslin and adjusting her blonde braids, "you two will never go wrong."

"That sentence doesn't deserve an answer," replied Grace, smiling.

"Well, let's change the subject. What are you going to wear to the party to night ?"

"My gray silk with my black lace point draped and a lace *fichu*."

"How very sober ! wont you add any color ?"

"Perhaps so ; I had'nt thought about it. I'll loop the lace with pink roses and buds, if you approve."

"Charming ! And you will wear roses in your hair ! You have splendid taste after all !"

Complimentary with a qualification !

"After all what ?"

"All your particular notions about temperance, and religion, and"—

"And what ?"

"Oh I dont know."

"I suppose not. What are you going to wear ?"

"My blue silk, with tulle overdress, looped with convolvulus blossoms, and coiffure to match."

"That will be both pretty and becoming ; I like to see you in blue."

"Thank you ! I am always sure of a costume if it suits you. In fact you have formed my taste, or developed it, or whatever you call it. How do you always know what is just right in every department ?"

"O Maud you go a great deal too far in your enthusiasm for your friends."

"Well, tell me how you know what you do know ; we'll assume that it is'nt much, just to please you."

"Did you ever think Maudy, that beauty and duty come from the same source ?"

"What a question, Miss Oracle ! It is worthy of you. No, I confess I never had such a thought. Will you tell me what you mean ?"

"I mean that beauty has its source in God ; and duty is but a name for God's voice in the soul. Duty refines and educates, and leads us slowly and surely into the realm of beauty."

"Yes, Grace, I see," said Maud, a sweet thoughtful smile, displacing for a moment her usual expression of childish gaiety ; "you are obedient to duty and you find out beauty but I am quite another kind of person ; I must be content to copy. I really must go, now, good bye dear ; I shall see you to-night."

"And you're not convinced about Harry ?" said Grace.

"No, I can't see that Harry is in any danger ; all the young men in his set drink wine ; I think he can take care of himself. It's of no use to worry, Grace ; don't look so serious ; Harry will come out all right, see if he don't."

The friends parted, to meet in the

evening, at Mrs. Stanton's elegant home.

Among all the high-bred, cultivated guests, none were greater favorites than Maud and Grace, and there was good reason for the love that flowed out to them. Grace was good, talented and elegant, the daughter of a good man, and the betrothed of one of the most successful young business men in the city. Little Maud Fay was an orphan, and lived with her uncle, who had nothing remarkable to bring him into notice, but she was such a bright, fresh bewitching rosebud of a girl, that her society was sought for as we seek sunshine.

The brilliant company chatted and promenaded, listened to music and partook of delicious refreshments, after the manner of party-goers in general.

Towards the middle of the evening a group formed about Grace and Maud, and in the course of the conversation, the subject of temperance came up.

"I know what Grace thinks about wine drinking," said Maud, mischievously.

"So do I" said Harry.

"But you don't know what she thinks about you," continued Maud, "Hush! dear," said Grace, "She thinks, that you are in danger so long as you continue to take wine."

Harry flushed a little, and bowing to Grace, said, with a touch of sarcasm in his tone: "Thank you Miss Fanton, for your friendly warning, and allow me to ask upon what grounds you base your fears."

"I am sorry that Maud has introduced the subject at such an inopportune time," answered Grace; "but since you ask me, I am willing to answer, I think that a man should be sure of his ability to control himself, before he tampers with anything that has an element of danger in it; upon the same grounds I think a child should not touch gunpowder, or play with sharp knives."

"I must infer then, that you consider me imperfect in self-control."

"Upon your own showing Harry," replied Grace very kindly, "your lack of self-control I am not disposed to criticise at your age. Men are seldom masters of themselves; my point is, that till you have acquired self-mastery, you should put yourself out of danger."

"That is well said," replied a gentleman who stood by; "but Miss Fanton is that your only argument, against the use of wine."

"I would wish to leave men free, as far as possible; I would apply motives that touch themselves, and then allow them to act rightly toward others from choice; but there is one argument that applies to all actions in every department of life; the argument of genuine regard for those who may be weaker than ourselves."

"And that is why you never touch wine, I suppose," said this gentleman addressed.

"I try" said Grace, "in this matter as in all others to throw my influence on the side of the tempted and struggling; but I have no desire to make my actions a model for others, I say this to myself! If all women should discountenance wine drinking, for the sake of those who are likely to take too much there would be a social revolution, What then is my obvious duty? To do myself, what I wish done by society."

"That is the right doctrine" murmured several of the company. Miss Fanton knows what she's talking about, as usual."

"And yet," said Harry Hubble, "we shall go on acting just the same; only the heroic soul puts belief in action and we are sorry heroes; eh, Maudy?"

"You are hero enough for me" said Maud in a low tone to her lover.

"And you don't agree with Grace?" asked Harry.

"Yes, it seems right, but what's the use of making such a fuss. I'm sure you'll never go too far; and one can't take care of everybody."

"And yet Maud, I'm not the fellow

you take me for. I like to have you think well of me ; but I wish you'd take my weaknesses into account a little more ; you'll be disappointed by and by, I'm afraid !"

Maud's only answer was a look of tender, confident love.

"You won't believe me, I assure you Grace knows me much better than you do ; she has reason to fear for your happiness."

By this time the lovers were separated from the rest of the group, and Maud was at liberty to clasp her little hands around Harry's arm, and protest against any more such talk. She pouted a little, and said in the infantine way that her friends found so charming. "O, if you are going to stop loving me, Harry, of course I shall not be happy."

Harry could only ejaculate fervently :

"Stop loving you Maud, as if I could ever do that !"

Thus Grace Fanton's arrow of truth was plucked out by Maud's own tender hand, just as Harry was beginning to feel the needed probe.

The evening passed successfully ; everybody was satisfied, and at last the weary pleasure seekers began to think of home. Among the first to go to the dressing room was Maud. When she was ready, in her street wrappings, she came down stairs, and waited in a little ante-room, for a servant to fetch Harry. She expected him in five minutes, at most ; but fifteen minutes passed, and just as she was growing uncontrollably nervous James Morgan came.

"Where's Harry ? What *is* the matter ?" she almost screamed, springing up, and seizing James' arm.

"Nothing serious Maud," Harry has had a sudden attack of—of—"

"Of what ? Let me go to him. I will go to him !"

"It is impossible," said James, holding the excited girl firmly, sit down and be calm : upon my word as a gentleman, there is nothing serious the matter, but you can not see Harry, for he

has already gone home attended by one of his friends. Stay here one moment. I will bring Grace, and we will all go immediately."

Poor Maud had no choice but obedience ; as soon as James was out of the room, her emotion found an outlet in a flood of hysterical tears, and she grew more and more angry every minute at Harry's friends for separating her from him when he most needed her, as she thought.

In the meantime, James explained the situation rapidly to Grace.

"You see, the foolish boy got to telling stories, and the gentlemen crowded about him, and the wine went round as usual you know how brilliant Harry is under such circumstances ; he grows more and more excited, and wit flashes from him as light from a star."

"And he drank too much," said Maud, sorrowfully. "O what a pity !"

There was no need for further words. Grace understood Harry better perhaps than any one else ; understood his faults as well as his virtues, and therefore was prepared to love him wisely.

Maud began to complain bitterly when her friends appeared.

"I wouldn't have treated you so, indeed I wouldn't," she said, beginning to weep again. Let me go to him now, wont you ? Please, Grace ! you and James go with me. I can't wait till morning to see him."

"Dear Maud," replied Grace, "believe me, it is not necessary or best for you to go. You will see him to-morrow, and then you can ask all the questions you please, and scold Harry to your heart's content for getting sick."

"I scold my darling ! Never. You don't know me. I only wish I had a right to go to him."

And so by dint of coaxing and firm denial, Maud was induced to go home.

Once alone in her own room, she gave free scope to fear, and passed a sleepless night.

To be continued.

A "PELHAM" ON THE QUARTER DECK.

ONE naval officer, Captain Ormiston, in the service of the British Government tells a good story of another officer in the same service :

"During the recent war in Egypt I took out supplies to Alexandria, and after discharging, received orders to go to Berwickport for a charter. I knew nothing of the place and had no chart of the north coast aboard of the steamer. None of the Merchant captains could supply me, and I finally concluded to apply to the Captain of the Ironclad *Invincible* that lay close alongside of us as a last chance. I pulled up to the gangway, and I was met by one of the officers who said I would have to wait a few moments as the crew were going to 'quarters.' As he spoke the boatswain's whistle was heard clear and sharp above the hoarse call of his mates. Immediately, as if by magic, yards began to come down and to go aloft, the blue jackets rushing to and fro on deck, and of a sudden bang went one of the eighty-ton guns fit to take your head off. After the men were 'piped down' I made my way up to the bridge where I found a little light-haired man trotting up and down. His hat was cocked roguishly on the side of his head ; he wore long side-whiskers, and an eyeglass dangled from a gold chain about his neck. As I approached he halted suddenly, whirled about on one foot, screwed his eyeglass into his eye, and in a sweet little piping voice, said :

" 'My dear fellah, what can aw do faw you ?' He cut such a figure that I was tempted to laugh in his face, but controlling myself I stated my errand. Immediately the little man had all the quartermasters running to find his sub-officers and in a jiffy they returned, and touching their caps, they began to report that Mr. A. was ashore on liberty, Mr. B. had gone to Cairo, and that Mr. C. was away in the first cutter, and so on. He then turned to me and rubbing his hands,

said : ' My deah fellah, Berwickport is a very fine place, aw assuah you ; you will find no trouble in getting in ; aw was there once myself.' Thinks I, what an ass this man is, and touching my hat I was about to go, when a big, sailor-looking officer appeared and informed the captain that there was no chart of the British north coast aboard the ship. Thanking the captain for his trouble, I went over the side and pulled aboard my own ship.

"No doubt you would have agreed with me that the Captain was no sailor and a fool besides, but you would have been mistaken, as I was. The next night the *Invincible* went to sea with a man in the chains heaving the lead. Of a sudden the breast-strap parted and away went the man overboard. The same little Captain was on the bridge. Instantly the foppish airs were gone and the true sailor appeared. Pulling the bells, he stopped the vessel, and just as he stood, oilskins and all on, went overboard to rescue his man. One of his lieutenants and a quartermaster jumped overboard to assist their commander. Instantly all was in an uproar. All hands were on deck. All the boats were lowered, and the four men in a few minutes were safe on board the *Invincible*. The leadsmen was entangled in the line and would certainly have drowned but for the prompt assistance of the Captain. In addition, this was the fourth man that same officer had rescued from drowning. His crew swore by him. He was a peer of the realm, and a better officer does not walk the deck of an English ship to-day."

SCIENCE AND RELIGION.—The antagonism between science and religion, about which we hear so much, appears to me to be purely factitious—fabricated, on the one hand, by short-sighted religious people who confound a certain branch of science, theology, with relig-

ion ; and on the other, by equally short-sighted scientific people who forget that science takes for its province only that which is susceptible of clear intellectual comprehension, and that outside the boundaries of that province they must be content with imagination, with hope, and with ignorance.

It seems to me that the moral and intellectual life of the civilized nations of Europe is the product of that interaction, sometimes in the way of antagonism, sometimes in that of profitable interchange, of the Semitic and the Aryan races, which commenced with the dawn of history, when Greek and Phœnician came in contact, and has been continued by Carthaginian and Roman, by Jew and Gentile, down to the present day. Our art (except, perhaps, music) and our science are the contributions of the Aryan ; but the essence of our religion is derived from the Semite. In the eighth century, B. C., in the heart of a world of idolatrous polytheists, the Hebrew prophets put forth a conception of religion which appears to me to be as wonderful an inspiration of genius as the art of Pheidias or the science of Aristotle.

“ And what doth the Lord require of thee, but to do justly, and to love mercy, and to walk humbly with thy God ? ”

If any so-called religion takes away from this great saying of Micah, I think it wantonly mutilates, while, if it adds thereto, I think it obscures, the perfect ideal of religion.

But what extent of knowledge, what acuteness of scientific criticism, can touch this, if any one possessed of knowledge or acuteness could be absurd enough to make the attempt ? Will the progress of research prove that justice is worthless, and mercy hateful ? will it ever soften bitter contrast between our actions and our aspirations ? or show us the bounds of the universe, and bid us say, Go to, now we comprehend the infinite ?

A faculty of wrath lay in those ancient Israelites, and surely the prophet's staff would have made swift acquaintance with the head of the scholar who had asked Micah whether, peradventure, the Lord further required of him an implicit belief in the accuracy of the cosmogony of Genesis !—Prof. Huxley, *Popular Science Monthly*.

JONATHAN CARVER, THE AMERICAN EXPLORER.

THE earliest American-born traveler of note was Jonathan Carver who first saw the light of life in Connecticut, in 1732. He was educated for the medical profession, but chose the military art as a vocation, and led a company of Connecticut provincials in some of the expeditions against the French in Northern New York from 1756 to 1759. He served with reputation until the peace in 1763, and soon afterward he formed the bold resolution to explore the Continent of America from Lake Superior to the Pacific Ocean. He also hoped thereby to be instrumental in finding the long-sought northwest passage to India.

Mr. Carver left Michillimackinac in the autumn of 1756. That was the most

westerly of the British military posts. Bearing a few gifts for the Indians, he penetrated the present Minnesota Territory to the head-waters of the St. Pierre, more than a thousand miles from the point of his departure. He was foiled in his grand design ; and after spending some time on the northern and eastern shores of Lake Superior, exploring its bays and tributaries, carefully observing the productions of nature and the habits of the Indians ; he returned to the settlements and laid his papers before the Governor of Massachusetts, at Boston. He had been absent about two years and had traveled over seven thousand miles.

Having carefully arranged his journals and charts, Mr. Carver went to

England for the purpose of publishing them. He petitioned the king for a reimbursement of funds which he had spent in the service of the government, in these explorations, but his claims were deferred. He received permission, however, to publish his papers and he sold them to a bookseller. Just as they were ready for the press, he was ordered to deliver all his charts and papers into the hands of the Commissioners of Plantations, and he was compelled to repurchase them from the bookseller. Ten years elapsed before he was allowed to

lay them before the public. In disappointment and poverty, he became a lottery clerk; and finally, in 1799, his necessities induced him to sell his name to a historical compilation, published in folio and entitled "The Universal Traveller." This act caused the loss of his clerkship, and many professed friends abandoned him. He died in the suburbs of London in extreme want in 1780 at the age of only forty-eight years. An addition of his travels was published in Boston in 1797.

LOSSING.

THE PHYSICAL CONDITIONS OF CONSCIOUSNESS.

IF we place a drop of acid on the skin of the lumbar region of a decapitated frog we immediately see the foot on the corresponding side lifted to scratch it and rub the spot irritated by the acid. If we repeat the experiment after having amputated the foot, the application of the acid puts the frog into an evident state of agitation. It makes fruitless efforts with the stump, hesitates, stops, seems to reflect and ends by employing the other foot to wipe off the acid. Pflueger was so struck by this phenomenon that he attributed not only consciousness, but even intelligence and will to the medullary reflexes. These opinions were adopted by Auerbach in Germany and Lewes in England. But since 1858 Schiff expressed himself opposed to this interpretation. He has the merit of having recognized, on the one hand that the facts observed in man in consequence of traumatic lesions of the cord do not permit us to conclude the *unconsciousness* of the spinal cord. For in these cases the nervous communication between the cord and brain being interrupted, the latter can in no way perceive what takes place in the cord; it is exactly as though these two organs belonged to two individuals—the brain of Paul does not know what occurs in the cord of Peter. On the other hand, the visible

reactions being the only objective sign which reveals to us the presence of a conscious sensation in any organism except our own, we have no right to refuse all trace of consciousness to the spinal cord. But whatever may be the degree of consciousness it possesses, we can by the following reasoning refuse the property of intention and will to the spinal reactions; in fact, we give this name to movements of which we have an anticipated representation, of which we foresee the form, the energy, the succession and the effect; but the spinal cord of a decapitated animal can not have these representations because the destruction of every sensory centre necessitates the abolition of the corresponding representations, and because decapitation is the simultaneous destruction of all these centres; the cord is therefore deprived of the psychical materials which combined into a whole, confer on any given moment the special character which we indicate by the word voluntary. So true is this that we do not give this name to movements which, notwithstanding the integrity of the nervous centres are accomplished in the absence of all this combination of representations without prevision and without consciousness; we then call them automatic. I would further say the examples of un-

conscious movements accomplished by ourselves seem to me the *only* facts favoring the possibility of unconscious nervous reaction.

This reasoning is perfectly applicable to the sensori-motor centres ; they are accessible to the multiplicity of impressions which the organism can receive from the external world by the organs of sense, and they consequently react by series or groups of movements to the series or groups of impressions which stimulate them. Thus, for example, a pigeon deprived of the hemispheres, stands on the ground or perches on a stick, maintains its equilibrium when the stick is rotated, rises if placed on its back, flies if thrown in the air and does not fall down after having flown but perches on any object, and so on ; in some favorable cases it even ends by learning to eat and drink by itself ; it then continues to live and behave almost like a normal pigeon, the only difference being that it is more apathetic, that it manifests less initiativeness, that it seems to "want spontaneity," as A. Bain would say. Seeing that the analogy between sensori-motor and ideo-motor acts is much greater than that between the first and the spinal reactions, we may *a fortiori* conclude that the opinion is not maintainable, according to which the activity of these centres is also unconscious.

Now, what is the degree of consciousness which we can attribute to the spinal cord and to the sensori-motor ganglia ? By degree I mean simultaneously the quantity and quality of consciousness, that is, its intensity and the psychical dignity of its contents.

On this subject accident has furnished me with information which I think important. During a certain period of my life I suffered from frequent syncope, and I had the opportunity of observing on myself the psychical phenomenology of the return to consciousness. During syncope there is absolute psychical non-existence, total absence of all consciousness ; then one begins to have a vague,

unlimited, infinite feeling, a feeling of existence in general without any delineation of one's own individuality without the least trace of any distinction between the ego and the non-ego ; one is then "an organic part of nature," having the consciousness of the fact of one's existence, but having none of the fact of his organic unity ; one has, in a word, an impersonal consciousness. This feeling may be agreeable if the syncope is not due to violent pain, and very disagreeable if it is : this is the only possible distinction, one feels that he is living and enjoying, or living and suffering without knowing why he enjoys or suffers, and without knowing the seat of this sentiment. A great number of facts make it probable that in this phase of return to consciousness, the extremities may execute the spinal reflexes in response to tactile or painful irritations, although the cephalic centres are certainly still incapable of becoming active. As a result of this first observation, I believe that the spinal marrow, suddenly separated from the cephalic centres by decapitation, is reduced to the elementary form of sensation without any discrimination, without localization, without knowledge of the different parts of the ego or ego itself, and accompanied only by a vague, diffuse, impersonal consciousness. Such, no doubt, is the only form of consciousness which we can admit in the minute beings which are wanting in special organs. It is also the only one which savants unanimously attribute to the newly-born child before he has had time to learn by the education of senses and the association of impressions, the topography of the surface of his body and to distinguish its different parts from one another and from the objects which do not belong to it.

I think, consequently, that the spinal cord of a decapitated animal would react to any impression indifferently by any movement, perhaps by a series of irregular contractions of all the muscles (as it really often does in the newly-born), if it

did not contain a great number of direct communications from the afferent to the efferent nerves, communications previously developed during the infinitely long evolution of living beings and become hereditary or else acquired by the individual himself, but in every case preformed ; that is to say, ready to react immediately in a given manner to a given irritation. I believe that in relatively simple cases, those in which the cord gives an immediate and limited right re-action to a particular stimulus by means of a preformed mechanism, the spinal consciousness is reduced to the minimum of intensity or to zero ; because then the transmission of the stimulus is accomplished with the maximum of rapidity and facility by nervous paths perfectly adapted thereto. On the contrary, in relatively complicated cases, like that of the decapitated frog whose leg we amputate to oblige it to execute less automatic reactions, or like that of the tritons of Flourens whose posterior extremities after total section of the cord, gradually learned to co-ordinate their irregular reaction with the movements of locomotion ; in these cases, I say, the spinal consciousness attains its maximum of intensity, because in these cases the central elements offer a considerable resistance to the stimulus which, not finding a means of escape close at hand, radiates and produces an extended, profound and lasting disintegration up to the moment when it succeeds in making new paths duly adapted to the unusual circumstances ; these paths once sufficiently elaborated, every act is accomplished more quickly, more easily, more automatically, less consciously.

But it must not be forgotten that we have always spoken of decapitated animals ; in the normal animal it is not quite the same. If an excitation which affects the spinal cord is not immediately and entirely transmitted and discharged in the shape of automatic reaction, nothing obliges it to remain in the cord and there to effect the adaptation of new

central tracks ; it thus follows that in the non-mutilated animal the spinal consciousness will never be called upon to manifest itself except in some exceptional cases, as that of animals who have no cephalic centres—the amphioxus for example. It is evident that in such animals the cord must accomplish all the functions devolving upon the nervous centres. But during the course of the evolution of human beings, the anterior portion of the cord undergoes an extraordinary development and becomes cephalic ; the central attributes follow the same course ; they gradually abandon the spinal centres which become more and more subordinate, and end by being only organs of transmission and of some definitely organized reflex acts. The central attributes gradually become the more and more exclusive privilege of the new cephalic organs which alone exhibit a complexity and specialization of structure capable of corresponding to the more and more varied necessities of a more and more complicated organism. It follows that the spinal consciousness must be more intense in the inferior vertebrates and less intense in the superior. It must be at its maximum in the amphioxus and its minimum in man.

Let us now proceed to the sensori-motor centres at the base of the brain. I have already said that the observation of animals deprived of their cerebral lobes leads us in the majority of cases, to the conclusion that the movements which they execute apparently without intelligence and without will are yet not unconscious ; on the contrary, analogy and especially the arguments which we have quoted in support of spinal consciousness, oblige us to consider them as habitually conscious reactions. Maudesley himself, so inclined to deny consciousness wherever it is possible to deny it, and so disposed to consider animals as unconscious machines, is obliged to recognize, notwithstanding some contradictions to which I will refer later on, that in regard at least to the

superior vertebrates in the sensori-motor centres enjoy a certain degree of consciousness :

“For it may well be that organs which are only a little lower in dignity than the supreme cerebral centres, which are essential to the development of their function, and are in such intimate functional relation with them throughout life that a functional separation appears to be a pure abstraction, do possess that property which is most highly but not exclusively developed in the higher centres.”—(“Physiology of Mind,” p. 243).

For the same reason he grants them, though unwillingly, what he calls a kind of sensory perception, which he considers the germ or rudiment of intellectual perception, the exclusive privilege of the cortical centres. So it is no longer the fact of consciousness which is placed in doubt ; we have to deal with a more subtle distinction relative to the quality of the contents of consciousness.

From the chaos of the first phase which is characterized, as you remember, by a confused impersonal consciousness, without any trace of localization, without discrimination of definite sensations, vague and obscure differences gradually take shape ; one begins to see and to hear ; but, what is very curious, the sounds and colors seem to arise within one's self, without one having the least idea of their external origin ; further, there is no connection between the different sounds and the different colors ; each of these sensations is felt by itself ; thence results an inexpressible confusion, accompanied by a complete stupefaction of the individual ; at this moment the sensory centres have regained sensibility, but they are so only to the impressions which come directly from the exterior, each centre for itself. The intercentral reflex action is not yet re-established, the different sensations do not combine with one another ; there thus results the total want of localization, of distinction between the ego and the non-ego, and of projection beyond the origin of the im-

pressions ; one has stupid sensations, if I may express myself so, that is to say, sensations which, because they remain isolated, can not be known, but only felt. Next follows the re-establishment of the intercentral reflexes ; their activity fuses into what we call the *sensorium commune* ; the different sensations begin to influence one another, and, consequently, to become reciprocally determinate, defined and localized ; and there results the distinct appearance of the consciousness of the unity of the ego.

But this consciousness is at first only an intelligent feeling, which merely expresses the fact of the organic unity of the subject, and from which a clear notion of the relation of himself to his surroundings is still entirely absent. In this stage of awaking I clearly felt I was myself, and that my auditory and visual sensations came from objects which did not form a part of myself ; but I did not understand what was happening, nor what had happened, why I was there, stretched on the ground or a sofa, nor why the persons present surrounded me eagerly, unbuttoned my shirt, threw cold water on my face ; that was because these are complex perceptions of a higher order, genuine intellectual perceptions resulting from the synergic action of the cortical centres ; they can only, therefore, reappear with the complete re-establishment of these centres, which are the first to suffer and the last to recover their functional integrity. Later on, at a given moment, at the end of a variable, but always appreciable interval, filled by the strange stupor already described, the cortical centres are suddenly re-established, their nutrition having resumed its normal course ; at the same moment the mind is traversed, like a flash of lightning, by the following thought ; “Ah, that was another fainting fit.” From this moment intelligence is completely re-established, it seizes the complicated relations of the situation, and resumes the command which a temporary insufficiency of cerebral nutrition

had deprived it of. Now, what conclusions can we draw here? In the first place, it seems evident that the sensory centres, taken individually, can be conscious each in its particular mode of sensation, but only, as I have said, in a stupid manner, that is to say, without combination or correlation between the different sensations, consequently without their localization—without projection of their origin beyond the ego—and, consequently, finally, without distinction between the ego and the non-ego.

In the second place, it is evident that the sensory centres, combined in the *sensorium commune*, if not anatomically, at least functionally, as the mechanism of inter-central reflex action of the synthesis of the different specific sensations of external origin, and of the internal induction of reflex sensations producing each other) may be conscious in an elementarily rational manner. Not only can they feel, but they can know that what feels is not what produces sensation; they can consequently have individual consciousness in its most elementary form, that is as a mere sentiment of the unity of the ego, but can not form a notion of the relations of this ego with what surrounds it, nor understand the circumstances in which it finds itself.

We see all this in a great analogy to what occurs in the spinal cord of a decapitated animal; very probably, in an animal deprived only of the cerebral hemispheres; the sensori-motor centres can at first accomplish only the acts, however complex they may seem to us, which are due to a preformed mechanism, hereditary or acquired; their reactions would consequently, in the majority of cases, be automatic, and slightly or not at all conscious. Just as the spinal cord in certain favorable cases, for example in the salamanders of Flourens, may learn to execute reactions which at first were impossible, so the sensori-motor centers learn in certain cases (to tell the truth very rare ones, for example in the pigeons deprived of their hemispheres) to execute all the co-ordinate movements necessary for the maintenance of the life of the individual; and we can not doubt that during the period of learning their consciousness must be carried to the maximum intensity of which it is capable, to diminish afterward gradually and in proportion as the new associations, by repetition and habit, adapt the nervous paths and render the inter-central transmission rapid and easy.—PROF. A. HERZEN of Lausanne.—*From the Journal of Mental Science.*

GENERAL WINFIELD SCOTT HANCOCK.

ANOTHER of our soldiers has fallen in the way, soon following Grant and McClellan who were fellow associates of his—classmates at West Point. The announcement of Gen. Hancock's death, without any previous warning of a serious illness, took the American people by surprise, and has awakened a general expression of true sorrow everywhere.

Gen. Hancock's career has been entirely that of the soldier, and is eminently creditable. He was born in Montgomery County, Pa, on the 14th of

February, 1824. His grandfathers on both sides took part in the war of the Revolution, and his father served in the war of 1812. Arrived at a suitable age young Hancock entered the military academy at West Point, whence he was graduated in 1844. In his class were Generals Grant, McClellan, Burnside, Reynolds, and W. F. Smith.

Cadet Hancock was appointed second lieutenant in the Sixth infantry, and served nearly three years on frontier duty at Forts Towsan and Washita, Indian Territory, receiving his commission of

full second lieutenant June 18, 1846. Early in 1847 he was detached upon recruiting service for the Mexican war, and accompanied the army which landed at Vera Cruz, March 9, 1847. Under command of his namesake, General Winfield Scott, August, 20, he won his brevet as first lieutenant "for gallant and meritorious conduct."

In 1848 Lieutenant Hancock was assigned to duty in the Quartermaster's Department, in which he remained until

after the commencement of the late war, he was commissioned by President Lincoln a brigadier-general of volunteers, September 23, 1861 and given command of the first brigade of General "Baldy" Smith's division of the Army of the Potomac.

His brigade saw its first active service under General McClellan, and participated in the action of Lee's Mills, Va., April 16, during the siege of Yorktown. At the battle of Williamsburg, May 5,



WINFIELD SCOTT HANCOCK.

the breaking out of the civil war. Though breveted first lieutenant on the field of Cherubusco, Hancock did not get his full lieutenantcy until January 27, 1853. He was made a staff captain November 7, 1855. In August 1861, he was ordered to report to the Quartermaster-General at Washington. Soon

1862, General Hancock had a separate and detached command of five infantry regiments and two batteries of artillery. The enemy attacked his forces in the evening of that day, after they had successfully repulsed Hooker's assault on the Union left. They were met by Hancock at the point of the bayonet and

driven, from the field after a fierce combat. For this service he was breveted major United States Army, his conduct being described by the Commanding General as "brilliant in the extreme."

During the Maryland campaign he was intrusted with several important commands, distinguishing himself especially at Antietam. November 29, 1862, he was made major-general of volunteers, and commanded the First division of the Second corps at Fredericksburg, December 13, when in the desperate assault upon Marye's Heights, his division lost 2,014 men out of a total of 5,000 taken into battle, and he was wounded himself. He commanded the same division in the unfortunate battle of Chancellorsville, May 1, 2, and 3, when his horse was shot under him.

At the great battle of Gettysburg, General Hancock's part was very important, commanding the rear guard as the Union army advanced. The last day of battle, July 3d, General Hancock received and repulsed the charge of Longstreet's column, 18,000 strong. This, in the general opinion of military authority, decided the issue of the battle. General Hancock received a dangerous wound from which he slowly recovered, and then returned to active duty and participated in the advance upon Richmond organized by General Grant, his corps occupying a prominent position and taking part in the successive battles.

In the year 1867, General Hancock was appointed by President Johnson to the Fifth military district, composed of Louisiana and Texas, to succeed Generals Sheridan and Mower.

He was afterward sent as commander of a military division to Dakota, where he remained from 1869 to 1872. In the latter year he was appointed commander of the military division of the Atlantic, with headquarters in New York city, where he has since resided. The Democratic nomination for Governor of Pennsylvania was tendered him in 1869, but declined. He was spoken of for the Presidential nomination at Baltimore in 1872, and later was nominated at the Democratic convention held in 1880.

Gen. Winfield Scott Hancock was a tall man, but of full proportions, impressive and soldierly, his complexion light with blue eyes. His portrait indicates a predominance of the Vital temperament; the chest being broad and deep, the neck uncommonly large, the cheek full and heavy—he was said to weigh 230 pounds or more. The features were relatively

small, as if he inherited his mother's mental and physical constitution. He evidently had too much flesh for perfect health, for the promise of long life, and also for the best mental conditions.

He had the sign of large Language; the fullness under the eye may, however, have been enhanced by the plethoric state of his general constitution, that which gives the fullness seen in the cheek, and the width to the side face.

Taking the portrait as our authority his percepts appear to have been full, enabling him to gather facts and information quite readily, and to hold them for use when occasion requires it. The reasoning organs appear to have been cultivated in later years; his pictures taken fifteen years ago show less of Causality, less of fullness at the upper part of the forehead.

There appears to have been rather strong Cautiousness and Secretiveness, the first giving prudence and the second policy, and though he might talk pretty freely, he was not likely to say more than his cause required; would be reticent and reserved in his statements if necessary.

There was a good degree of Order and Calculation, considerable mechanical talent—languages and literature, power of statement and expression would be more manifest in him than comprehensive, theoretic power adapted to largeness of planning and appreciation of remote causes and consequences. If he had been a lawyer or legislator, he would have advocated and pushed a bill with more skill and tact than he could have organized or initiated measures.

He had great ambition, being inclined to do and suffer much to attain and keep position, esteem, and popularity. His temperament had a tendency to anchor him to the physical, the tangible, and the earthly; he was not strongly theoretical, sentimental, or disposed to live in the realm of the ideal. He had a warm social nature, was fond of his friends, and very affectionate in his domestic attachment; those who ranked "upon his list of friends" must have deemed him genial, hearty, companionable, and devoted. In an estimate of his character a few years ago we said that it seemed to us that it would be well for General Hancock to modify his apparent habits to "live on 'half rations,' and by so doing he would live longer." He was too plethoric, too heavy, "by losing say fifty pounds of flesh he would have a clearer mind and a better chance for long life."



THE POISON PROBLEM.

THE advantages of the inductive method of logic are strikingly illustrated by its influence on the progress of dogmatic reforms. In the Middle Ages the march of such reforms in their advance from special to general facts was amazingly slow. Long after the introduction of humanitarian ethics had circumscribed the authority of military chieftains and led to the recognition of the more essential civil rights, it was still deemed perfectly legitimate to enslave aliens, and for a full century after the privileges of humanity had been extended beyond the political boundaries of Christian Europe, they were still denied to the pagan Ethiopian. Religious liberty, too, is a plant of slow growth ; but Francis Bacon has not lived quite in vain, and the civilized part of mankind has at last reached the conclusion that no man has a right to meddle with the metaphysical theories of his fellow-man.

The most remarkable instance of long-deferred generalization in the recognition of a plain truth is therefore certainly the history of the Temperance Movement. As much as two hundred years ago Dr. Hermann Boerhaave inveighed against "French high wines and adulterated liquors," but recommended an occasional glass of good old *Schiedam*. Dr. Zimmerman, the medical adviser of Fred-

erick the Great, induced his royal patron to renounce the use of wine, and called even the Johannisberg (a famous plantation of Rhenish grapes) "a fountain-head of gout and sorrow," but does not object to beer, or to cider or coffee. Strong coffee is still the pet beverage of many so-called total abstainers. Many Mohammedans who would think a glass of wine a dreadful pollution, dream away half their existence in opium slumbers. I know a zealous Temperance lecturer who drinks coffee and strong black tea, and smokes about eight cigars a day. He would indignantly repudiate the charge of inconsistent conduct, and yet the time is near when that inconsistency will appear as surprising as that of the American reformers who in 1788 built in Boston a brewery "for the accommodation of the Temperance Society." They warred fiercely against alcoholism, but failed to see that beer-drinking is only a modified form of that vice ; and with a hardly less incomprehensible short-sightedness our temperance apostles fail to see that alcoholism itself is nothing but a special form of the poison habit. For in their action upon the human organism foods and poisons can be plainly distinguished by the following tests :

1. *As a rule the attractiveness of alimentary substances is proportional to the degree of their healthfulness and*

their nutritive value. To the children of nature, hurtful things are repulsive; beneficial things attractive. That instinct adapts itself even to abnormal circumstances. Nurslings, deprived of their mother's milk, instinctively appreciate the proper component parts of artificial surrogates. Sailors in the tropics thirst after fruit, after refrigerating fluids, after fresh vegetables. In the polar seas they crave calorific food—oil or fat. But in no climate on earth is man afflicted with an innate craving after brandy. To the palate of an unseduced boy alcohol is so repulsive that temperance sermons would be as superfluous as lectures on the folly of drinking reeking coal-oil. The first glass of lager beer is about as attractive as a puddle of fermenting soap-suds. To Lane's Highland girl wine seemed as inferior to must as "blinked" milk to sweet milk.

2. *The instinctive aversion to any kind of poison can be perverted into an unnatural hunger after the same substance.* After the alcoholic fever has once or twice convulsed the organism, the subsequent exhaustion begins to beget a craving after a renewed application of the toxic stimulus. The system has adapted itself to the influence of an abnormal condition and protests against an interruption of that influence. The appetite for wholesome food, however palatable, is never exclusive. A person may become fond of poached eggs and yet accept a piece of bread and butter as a welcome substitute. A predilection for honey, ripe grapes or pancakes will not tempt a man to sell the wardrobe of his children in order to indulge his appetite. Nor is that indulgence followed by an agonizing reaction. A full dose of cream and strawberries does not result in a war dance with the powers of darkness.

3. *All poison habits are progressive.* The development of the alcoholic habit has been ably compared to the growth of a parasitic plant which, sprouting from tiny seeds, fastens upon, preys upon, and at last strangles its victims. The organ-

ism becomes blunted against the influence of the stimulant, but the craving for stimulation remains and has to be satisfied with an ever-increasing dose of the same tonic, or else with a stronger poison. At first the neophytes of alcohol toy with danger, but their habit "grows upon them," as our language so significantly expresses it, and unawares they find themselves in the predicament of the insect struggling in the adhesive sweets of a Venus Fly-trap.

And all these systems of Alcoholism apply to every other poison habit. Poisons and stimulants are, in fact, convertible terms. Thousands of years before the dawn of Grecian civilization the Hindoos fuddled with soma-juice, the sap of a species of *Stramonium* now sometimes used as an asthma-specific. The natives of Kamtchatka have for ages used the common fly-toadstool (*agaricus maculatus*) as a medium of intoxication. Their neighbors, the pastoral Tartars, get drunk on *Koumiss*, or fermented mare's milk; the Asiatic Turks on *hasheesh* (an infusion of hemp seed); the Ashantee on sorghum beer; the Guatemala Indian on *cicuta syrup*, the inspissated juice of a kind of hemlock that first excites and then depresses the vital energies, just as brandy, opium or chloral. According to the "Hungarian Traveller," and Ethnologist Vambéry, the Syrian Druses had to organize a temperance crusade against the venders of *fox-glove-tea*. The Spanish American miners use cinabar and acetate of copper; the Swiss highlanders, arsenic—all, habits equally persistent and pernicious. To the Peruvian mountaineer the loathsome *coca* (maize fermented by means of mastication) becomes as attractive as hock to the Rhineland peasant. And all such poison habits are progressive. An arsenic-eater begins with a fraction of a scruple and increases that quantum to a dose that would kill a bull rhinoceros. A prescription of laudanum is frequently a preparatory school of the opium habit. A fellow whose mysterious ailments puz-

zled the doctors of a Hamburg charity hospital, at last confessed to a weakness for *tan-water*. He was a tanner's apprentice, and in the course of his daily labors had somehow or other contracted a predilection for the caustic fluid, and fared on the whole better than the votaries of more expensive tonics, for he gratified his passion for three years before an inflammation of the fauces entered a protest against a further increase of the dose. If any poison-eater should happen to contract a fondness for phosphorus-matches he would soon have to stuff his pockets with match boxes.

In comparison with the worst forms of alcoholism such peccadillos as the coffee-habit may seem the veriest trifles, but the trouble is that the comparative advantage lessens from day to day. Old habits drink coffee as a Munich burgher drinks beer, in quantities to supplement the shortcomings of the stimulating quality. A potful of strong black coffee contains nearly the same aggregate of toxic elements as a glassful of brandy. And moreover, coffee and tobacco lead to alcohol. Rather than increase the quantum of his tipple *ad infinitum*, the coffee-drinker is always tempted to graduate to a higher-grade poison: hasheesh in Egypt, opium in Turkey, wine and rum further west. Thousands of toppers have entered the beer-garden through a coffee-house. The abyss of the opium-habit has become the grave of thousands who first lost their way in a cloud of tobacco smoke. The beer brewery of the first American Temperance Society probably made more rum-drinkers than their missionaries could unmake. The votary of the stimulant habit, even in its minor forms, commits himself to a stream with an ever-deepening current, constantly tending to carry him off his feet. He may save himself by getting ashore, but can not hope to arrest the progress of the current. We can prevent, but not control, the development of a poison habit. We might as well try to legislate against the ague after permitting the ac-

cumulation of festering garbage. A compromise with lesser evils may sometimes seem the best policy, but we may be wholly sure that the fight against Intemperance will remain a hopeless struggle till we deaden the roots of the Upas-tree by total abstinence from all poisons.

The question remains: Is there a physiological necessity for any artificial stimulants whatever? That alcohol and coffee are not brain-foods but only brain-irritants is abundantly proved by the number of eminent thinkers, poets and reformers, as well as philosophers who were total abstainers in an almost ascetic sense of the word; and biologically the question is settled by the fact that the only animals who in a state of nature use anything like a digestive tonic, do not belong to a species of our remotest kinship. Wild cows, deer, sheep and a few other ruminants pay an occasional visit to a salt-lick; but the carnivorous wolf, as well as the frugivorous monkey and the almost omnivorous bear, prefer to digest their food without salt. Our primeval ancestors were probably tropical fruit-eaters with a tendency to deviate to the flesh-food of higher latitudes, but they certainly were not *graminivorous* like the salt-loving ruminants. If then, even the mildest of dietetic tonics is an expulsive, rather than essential item of our fare, the belief in the necessity of more violent stimulants is certainly as gratuitous as the Feejee doctrine of salvation by cannibalism.

Statistics prove the melancholy fallacy of the hope that milder stimulants would tend to supersede more baneful poisons. Their comparative harmlessness merely smoothes the road to ruin. Their intrinsic value is always a negative quantity. The philosophy of the Stoics would have preferred to dispense with the aid of tobacco smoke; one can get the *good* of the weed without; and the Caucasian nations had reached the prime of their physical vigor before the Epicureans had ever heard of narcotic beverages.

FELIX L. OSWALD, M. D.

THE STANDARD OF HEALTH.

THERE are, it is said, different *degrees* of health ; this fact is obvious. What makes the difference? It is not because this or that organ alone is sounder in one person than another. It is not simply because one person takes so much better care of himself than another, though this makes quite a difference. If we bring together all the causes or reasons we shall find that the secret consists in the fact that the constitution of one is more perfectly and evenly developed—that there is greater harmony and completeness in the performance of the functions of all parts of the body. There must therefore be a *general law* regulating this whole matter of health—some standard, some type of organization better than all others. In other words, it consists in that type or standard where every organ in the human body is perfect in structure and where each performs perfectly its own legitimate functions. In some respects the body may be compared to a complicated machine, so thoroughly and perfectly made that the “wear and tear” will come equally upon every part according to the design in its construction.

Closely connected with and legitimately following this condition of things, we find nature has established

A LAW OF LONGEVITY.

Is there not some standard or model laid down by physiology that shows why in certain cases life should be protracted to a great age? It does not depend upon food, climate, locality, race or care, though all these may have much to do with it. Is there not an *internal factor* more important than all these? One of the great secrets, we believe, not only of good health but of long life, consists in the harmony or balance of organization. This must apply both to structure and function. The leading vital organs should be not only sound but well-balanced. The principal forces in carrying

on the functions of life may be summed up under these heads : Respiration, digestion, circulation, assimilation and secretion. Each of these departments must be well sustained in order to secure long life.

But, aside from any theory or opinion or argument, what are the actual facts—what do we find in the organization of those persons who have reached a very great age? No tables of statistics can be given from post-mortem examinations of such cases, because attention has not been turned in this direction. But, from the physical description of a great number of very aged persons, and from careful observation also of a very large number we have always found that a most striking harmony or balance of the physical system prevailed. In great longevity there is uniformly found remarkable consistency or evenness in the mental, moral and social elements of character. These traits originate from a sound and well-developed brain. This organ plays a very important part in securing longevity.

There is another argument in favor of this law of longevity—that the extremes in physical or mental development seldom reach a very great age. It should be borne in mind that the law of longevity here advocated constitutes the golden mean or balance-wheel between these extremes. For instance, the defective classes such as the insane, the idiotic, the deaf and dumb, the blind, etc., are not as a body, long-lived. Neither are dwarfs or giants, nor persons approximating such organizations very long-lived.

There is another very important factor in longevity — that is, *inheritance*. Scarcely any truth on this subject is more firmly established than that the ancestry, the family or stock has much to do with long life. Seldom, if ever, do we find a person reaching a great age without some one or more persons in the

ancestry have reached a great age. What then, is the peculiarity or type of organization here perpetuated? What are its elements that make life so long? Do we not find that they consist in a sound, healthy structure of every part of the body, and that there is a remarkable balance in all the organs and a harmony of functions? So universally is this essential element found in persons long-lived that we question whether a single exception to the rule can be found. This leads to another application of this normal standard of physiology, that upon it is based the

LAW OF HEREDITY.

For centuries there has been more or less interest on this topic. A large mass of facts have been gathered upon the subject and physiologists now generally admit that there must be truth in this matter of inheritance. Within a few years the interest has greatly increased. In the case of domestic animals the principle has been reduced almost to a science. With some changes or modifications, the same principle which has been so successfully applied to the animal creation will apply to human beings. But before there can be great advances on the subject, we must understand heredity better—we must have some general law or principle to guide us. What we need more than anything else, is a general principle or law by means of which all the facts or knowledge of this kind can be classified and reduced to some system. It is impossible to make any great advances or improvement upon the subject of heredity without such a guiding principle or standard of appeal. In the facts or phenomena of nature there must be some general law or principle to guide us in understanding them and improving upon them. All science makes progress only in this way.

While there may be different factors, and secondary causes in producing many of these hereditary phenomena, if the primary cause or starting point could

be ferreted out, we might find it to extend back several generations. All the general principles of science when traced back to their origin are based upon nature in its best condition. And the nearer we can go back to a perfect physical organization the less peculiarity, eccentricity or defect shall we find. It may be we can not explain or understand all the causes of the strange or different phenomena of character; it does not disprove but there may exist a general law somewhere. It is true there have been different theories and speculations in accounting for hereditary influences, but we do not believe that they can all be explained so satisfactorily upon any other law or hypothesis as upon the one here stated—that is, upon a perfect development of anatomy and physiology, or in other words, that all the organs in the human body shall be so constructed that there must be legitimately a healthy performance of all their functions.

There is another important test in favor of this normal type of physiology—as far as the human body is concerned, it presents the true *standard of beauty*. Man was created with a sense of taste and love for the beautiful, which cultivated and perfected, might find objects in nature capable of gratifying this taste to its fullest extent. Now there must be a type or model for man, which in form, proportion, size, fullness, outline is more beautiful than all others. Is not this the same standard that Grecian and Roman artists have attempted to imitate in statuary? Has it not in all ages and with all nations attracted attention? Why should it not constitute the basis or foundation for most valuable laws? But the most important law of all involved in this physiological description remains to be stated, that is

THE LAW OF HUMAN INCREASE.

This law virtually controls all others. With a change here the conditions of health, of longevity and of heredity would necessarily be more or less affect-

ed. It is in fact the starting-point, the groundwork of the most important inquiries that can be raised connected with physiology. All that we can here do is to state what this law is, what some of the evidences in support of it are, and what are some of its applications. It would require volumes to do justice to the whole subject.

In the first place there is no universal law of population that is generally admitted as such, and referred to as authority. Nearly one hundred years ago Malthus established what he supposed a general principle to regulate population, and his theory prevailed for fifty years or more. It is discarded now by all physiologists as well as most writers on political economy. It is rare to find now any prominent writer advocating the doctrines of Malthus. The theories of Herbert Spencer on this subject have probably at the present day more influence than those of any other writer. The views of Spencer, unlike those of Malthus, are based upon physical organization, but are not so strictly physiological as the law here proposed. The foundation, the ground-work of the law we advocate, is based solely upon anatomy and physiology in their best estate. There are other factors, such as food, climate exercise and other external agents, but these are secondary.

That this law may be distinctly understood, we will describe, as briefly as possible, what is meant by it. It is based upon a normal or perfect physical standard of the human system, where every organ of the body is complete in structure and performs fully all its natural functions. This principle implies that the body is symmetrical, well developed in all its parts, so that each organ acts in harmony with all the others. According to this principle the nearer the organism approaches that standard, and the laws of propagation are observed, the greater will be the number of children, and the better will be their organization for securing the great objects of life.

On the other hand, if the organization is carried to an extreme development in either direction, viz., a predominance of nerve tissue, or of a low animal nature, the tendency in such families or races is gradually to decrease and ultimately to become extinct. Thus people enjoying the very highest civilization, or living in the lowest savage state, do not multiply rapidly. It is well known that the families in Europe belonging to the nobility or aristocracy, whose nerve tissue has become predominant by inter-marriage from generation to generation, do not increase much, and not unfrequently these families become extinct. A similar result has also followed the inter-marriage of relatives from the fact that the same weaknesses or predispositions to diseases are intensified by this alliance. On the other hand, in case these relatives have healthy, well-balanced organizations—it may be they are cousins—they will abound with healthy offspring, and the stock may improve, and not deteriorate, from the mere fact of relationship. It explains a principle that has long been employed in the improvement of domestic stock under the terms, “breeding in-and-in,” and “cross-breeding.”

NATHAN ALLEN.

FRUIT IN OUR DAILY DIET.—One of the most salutary tendencies of the common domestic management in our day is that which aims at assigning to fruit a favored place in our ordinary diet. The nutrient value of such food, in virtue of its component starchy and saccharine materials, is generally admitted; and while these substances can not be said to equal in accumulative force the more solid ingredients of meat and animal fat, they are similarly useful in their own degree, and have, moreover, the advantage of greater digestibility. Their conversion within the tissues is also attended with less friction and pressure on the constructive machinery. Almost all persons in fairly

normal health may partake of sound and ripe fruit in greater or less amount. Except in certain cases, indeed, there is practically no exact limit to its consumption under these circumstances. Among such exceptions may be noted the gouty and rheumatic habits of body. A tendency to diarrhoea or a dysenteric history obviously forbids the free or frequent use of fruit. Dyspeptic stomachs, on the other hand, are usually benefited by a moderate allowance of this light and stimulating fare. It must be remembered, moreover, that every fruit is not equally wholesome, let the digestion be as powerful as it may. Nuts, for example, consisting as they do, for the most

part, of condensed albuminoid and fatty matters, can not compare in acceptance, either by the palate or the stomach, with other more succulent kinds, even though they contain in the same bulk a far greater amount of nutriment. A little of such fruit is enough for digestion, and that little is best cooked. Nevertheless, if we take fruit as a whole, ripe and sound of course, and consider its variety, its lightness, and nourishing properties, whether eaten alone or with other food, and its cheap abundance, we can not hesitate to add our voice in support of its just claims on public attention.

The above is taken from that received medical authority, the London *Lancet*.

THE VALUE OF OLD SHOES.

TO-DAY I have been doing a rare and novel job, among fruit trees and grape vines. For a year past, one corner of the garden has been appropriated as a little dumping nook, where all the valuable rubbish that accumulates on the premises is stowed up neatly for manurial purposes, to enrich the soil about fruit trees, berry bushes and vines. Some little boys in the neighborhood, are accustomed to pick up every fragment of bone they can find, and sell them to rag-pickers, for only five cents per pailful; I offered them ten cents per pailful. During the year I purchased three barrels of good bones. To-day, I have been burying them in this way. I dig a trench around a pear tree or vine, about twelve inches deep, and a foot wide, and two, three, or more feet distant from the body of the tree; after which about half a bushel of bones is scattered in the bottom of the channel. Then, old shoes that will never be worn again; old newspapers, old rags, bits of old carpets, old band boxes, old books, large bundles of circulars which have been sent us, unsolicited, old rubber over-shoes, fragments of worn-out oil cloth, old hen's feathers

that have been accumulating for a long time, but have not been used, old scraps of iron, old stove-pipes, the hair in old mattresses that is considered of no value, heads and feet of fowls, and every thing in the line of rubbish is kept in barrels, and then buried where all such trash will play an important part by way of renovating the soil near fruit trees, and thus render them material aid, by way of developing more healthy trees and finer fruit. The roots of growing trees will soon find all such rubbish and use it up. Even the hardest bones will soon disappear after the roots have laid hold of them.

It has been stated that Roger Williams, the eminent founder of Rhode Island, was eaten up by the roots of an apple tree, that grew near his grave. One root struck down to his coffin, commenced at the head and devoured the body and then branched off where the legs were quietly reposing, and consumed not only the dust but every little bone. The root of the tree, representing a man's body and legs, was dug up with care, and was preserved in the archives of the Historical Society. No doubt the body of that great man (or some of it at

least) aided in developing fine apples. It has often been asked : " Who ate the body of Roger Williams."

Most people collect all such rubbish as has been alluded to, and cart it away to some dumping ground, or burn it. Hair, feathers, wool, horn-shavings, hoofs of animals, and bones will make the best kind of material to enrich the soil around fruit trees and berry bushes. Hair and feathers are worth as much, pound for pound, as the best quality of bone dust. Dealers in rags will pay half a cent per pound for old woolen rags, which are actually worth two cents per pound to

enrich the soil around fruit trees. Old paper is frequently sold for one fourth of a cent per pound, when it is really worth not less than one cent per pound as a fertilizer, especially on thin, sandy land, where carbon is needed. Paper is nearly all carbon. We never sell any such rubbish, nor is it burned up. If buried where the roots of fruit trees can reach garbage of any kind, which is often cast into the street to feed worthless curs every atom will eventually be licked up, to promote the growth of healthy branches and delicious fruit.

SERENO EDWARDS TODD.

WELL MATCHED.

ONE of our medical exchanges publishes the following :

Experience, judgment, theory, faith, chance and patience sometimes have strange encounters and excite a strange admixture of feelings, including wonder, mirth, humiliation, exultation, doubt, confidence, and the want of it, in the parties concerned and those who listen.

John Farnam, his wife and Dr. Lang were very substantial people—book wise, worldly wise, well-to-do and level-headed. John managed his affairs well, and his wife in her domain was like him. Each had their peculiarities, and neither allowed them to clash. Dr. Lang was sound in his profession and was a welcome friend as well as the family physician. Mrs. Farnam had an irreconcilable objection to the use of mercurial preparations in any form as medicine, and would not use them or allow their use for herself or her children. John took what the Doctor gave him and let his wife have her way.

The youngest child, a boy of fourteen, was attacked with dysentery and rapidly ran into danger with it. Dr. Lang desired to use mercury as an alterative in his treatment, but Mrs. Farnam said no. The boy got worse. The Doctor tried hard to reason down her objections, but

in vain ; then he went to John, and told him the boy would die unless he was allowed to treat him according to his own judgment and experience. John said he could not help it ; he must settle it with his wife. The Doctor did his best to convince Mrs. Farnam that her views were erroneous and her objections were only prejudice, and would cost her son his life. She did not falter in her own judgment. To save the boy, the Doctor thought deception justifiable, so he said he would do the best he could and be responsible. Then he made his prescriptions and left them with instructions, visited the boy often and watched him with great care, while Mrs. Farnam nursed him. By a hair he turned the corner and began to mend. When he became convalescent and was able to be propped up in bed and eat something, Dr. Lang felt that he must unload his conscience for his deception and prove to Mrs. Farnam how unreasoning her objections were to the use of mercury in every form, and show that it was the sheet-anchor in some cases of disease. So he congratulated her on the recovery of her son, told her he had been giving him calomel and mercurialized chalk, and so had saved his life ; and but for that he would have died ; that he was justified

in his deception by the results, and trusted that she would overlook it and lay aside her unjust prejudice.

"So you have secretly been giving him mercury, have you Doctor?"

"Yes, madam. It is the only thing that saved him."

"And knowing how I felt about it, you have been using my hands to do what I would not knowingly let them do, by deceiving me?"

"Yes, madam. You compelled me to do it, for I felt that you had no right to put your unjust prejudice against the boy's life."

"And so I would have killed him, and you saved him to me with the deception and the mercury?"

"Exactly, Mrs. Farnam. That is all of it."

"You feel certain about that? You can't be mistaken?"

"I know it, Mrs. Farnam. He grew rapidly worse until I decided to give him the treatment my judgment dictated, and from that time he changed for the better. Of course I know."

Mrs. Farnam walked to the mantel, and lifted up an ancient vase that stood there as an ornament. She swept off some parcels into her hands, walked to Dr. Lang, and told him to hold out his hands; and she emptied the contents of her own into his, saying: "There, Doctor, is every prescription you made, and every powder you left for my boy. I suspected you, and I never gave a dose you left. I took his life into my hands, determined he should not be killed, but if he died, he should die a natural death. With such remedies as I knew could not harm, and I believed would benefit, and with careful nursing, my boy comes back to me from the shadows. I respect your judgment, I thank you for your earnestness and zeal, and am sorry to mortify you. But I have confidence in my own judgment also. I am sorry you tried to deceive me. I dislike to be suspicious; but in this case it has all worked together for good, and in a measure we have both had our way. "All's well that ends well."

C. H. REEVE.

HINTS FOR CONDUCT.

FIFTY years ago there was a well known publication called "The Good Manners Book." It contained instructions in regard to going to and returning from church, on table etiquette, etc. On each page was a picture representing the fault mentioned in a couplet beneath. The following are a few specimen couplets that are appropriate for advice in some domestic circles to day.

Writhe not your limbs in every shape
Of awkward gesture like an ape,
Twirl not your toes, nor lolling stand,
Nor in your pockets place your hand.
All whispering, giggling, winking, shun
Turn not your back on any one.
When you blow your nose be brief.
And neatly use a handkerchief.
Do not allow yourselves to look

In letters, papers, or a book,
(Till you have leave.)
Set not your knife and fork up straight.
Gaze not upon another's plate.
Dip not a dirty knife in salt,
But carefully avoid the fault,
Of blowing while at meals your nose,
Unless necessity impose,
When drinking do not stare around,
Nor make a harsh or gurgling sound.
Turn not your meat nor view it close;
Nor ever hold it to your nose.
Stuff not your mouth, nor blow your meat,
Wait till it's cool enough to eat.
If in your food should chance to be
What can't be eat conveniently,
Remove it from your mouth with care
Lean not upon an other's chair.
Use not a toothpick to be seen,
But hold a napkin for a screen.

WRITER'S CRAMP.

THE name "writer's cramp," would seem to imply a local affliction, but an affection of this character is seldom, if ever, wholly due to local conditions.

The primary cause of the complaint lies back of it, and in this respect the mechanism of nature is unlike the mechanism of man. In man, beyond the mechanical adaptation, one part has no relation to the other. In a machine of ten parts if one be imperfect in the running, it will have more or less ill effect on the other parts ; but the machine may be stopped, the imperfect part replaced with a perfect one, and all will then work smoothly. But in nature there can be no such local treatment of a member. Local treatment, in whole or in part, must be resorted to in cases where the affection is local, like an injury from some external source ; but where the affection is the result of general debility, the whole system must be put in order before it can have any great power to repair a member or part. Nature has the power to repair, but that power is general and not special, and works from the centre outward and not in an independent manner on a part or member. There may be an apparent exception to this where a medicine is supposed to have some independent or special local effect, but then the local effect is secondary ; the primary effect is to "tone-up the general system." This done the local repair is included in the general improvement.

In the "writer's cramp," the general system is more or less out of order, so the first effort should be to restore that. Yet it may be that the system is in fair condition, and that too much strain has come to one set of muscles, or the action or freedom of these muscles or parts may be interfered with by the dress. Such being the case there is need for a change of position, the exercise of a different set of muscles, or relief in the dress.

Where the system is debilitated, the

blood is impoverished and the circulation impaired and enfeebled. People are at times crippled in some member and are thereby forced, by the exercise of their will power, to do tasks in an indirect and unnatural manner. They who are enfeebled by disease, and yet have to continue at their work, have often to resort to ingenious expedients to favor the weaker part. Those who are obliged to write and are subject to the "writer's cramp" would do well to attend first, to the building-up of the general system ; but as subordinate relief they may desire to do that which will favor their weakened condition.

Up-hill circulation is not difficult for the vigorous and strong ; but persons of enfeebled circulation must guard against enforcing an extra and impossible duty on a weakened system. They need to help the circulation of the blood in the hand rather than to do that which may obstruct it. For this purpose the position at the desk or table should be elevated, say by sitting in a high chair, or standing at a desk, in such a manner that the hand will be a little above the plane of the writing material and not below it. But in order to do this, the person, if sitting, must have something to support the feet ; it will not do to let them be without a proper rest.

The position assumed for the purpose of favoring one member must not be detrimental to another. What is needed is a relatively low table, *i.e.*, the arm of the writer should be above the surface of the table. If the table is already quite high and if the chair is high, there must be a stool for the feet to rest upon.

I think where persons are troubled with or liable to the "writer's cramp," they will find relief by this relative elevation above their work ; that the elevated position will favor rather than obstruct the circulation, and that this is one important point to gain. But this, although a relief, is only a local treat-

ment. What is needed most is general treatment whereby the whole system may be put in order and the condition of health restored. The general health good, it will not be difficult to maintain the parts in good and vigorous condition.

J. P. N.



EYE-GLASSES AND CATARRH. — We have our national game of base ball—more's the pity—are we also coming to have our national disease? One might well believe it in seeing how all our papers are filled with advertisements of catarrh remedies. Has any one thought what may be *one* cause of this very common disease? Has it not increased wonderfully since the almost universal wearing of eye-glasses to which so many of quite young children in our schools are coming. Can anything be placed so tightly upon the nose as to be a fixture without positive injury to the delicate breathing apparatus within it?

Then too, no one wearing them can carry the head in an easy, natural position, but with spine so erect as to resemble oriental water-carriers. And though I have read eulogiums on the beauty of their erect figures and stately gait, I incline to think our Creator intended us to occasionally rest the spine by unbending a little. I have noticed so many after wearing, for a while eye-glasses beginning to complain of the head, of catarrh symptoms, throat difficulties, that my mind is quite settled upon this one serious cause thereof, and if eye-glasses were not a little more genteel, do not make one appear so old as spectacles, a return to those good old-fashioned helpers of defective eyes would, I believe, cure catarrh much sooner than the inhalers and nostrums whose name is legion.

Surely these eye-glasses are a nuisance in other respects. Attach them to your dress, put them on, and with a sudden change of position, where are they? Fail to attach them and you will be sure to ask in despair, when wanting them in

a hurry, "where *are* they?" Now, spectacles with the small, flexible bows that hook over the ear, keeping them from slipping off as they rest loosely over the nose, are so much better in every respect, that I long to see them adopted by all classes, not only for the benefit to the poor spines, but for, as I believe, the doing away with these disgusting advertisements and the still more disgusting disease they claim to cure.

A pretty young lady may not look so piquant and fascinating in her spectacles, but how much easier her gait, how much sweeter her breath, how much more wholesome her whole make-up! And the "dudes," Oh! is it expected they *can* come to this change when they are so killing in eye-glasses?

H. N. S.



A LITTLE "PATHIC" SPAT.

Little drops of water,
Little grains of milk,
Make a little doctor
Of the homœopathic ilk.

N Y. *Medical Record*,

Learned talk of microbes,
Guess work o'er the sick,
Mark the allopathic
Doctor of physic.

If he's liberal-minded
He—as one would say
Suffering from coryza—
Finds it a "Code" day.

N. E. *Medical Gazette*.

STORE MINCE-PIES.—Here are a few of the materials in a sample of modern minced-meat, such as is found in many of the cheap pies that are supplied to the grocery and the small restaurant by pie companies: sulphurous acid, lime, vinegar (these comprising the preservation mixture, wine, brandy, and cider being too expensive) apples, neither peeled nor cored, those with white skins being used, as the red would betray themselves. To pare the apples is an operation entailing expense, and is, in the eye of the thrifty manufacturer, a waste. So the fruit is thrown into the chopper; and skins, cores, and rot swell the bulk, and add their quota to the indigestibility of the compound.

NOTES IN SCIENCE AND INDUSTRY.

California Volcanoes.—The phenomena of volcanoes and of lava flows are exhibited on a grand scale within the limits of the United States. In the Cascade mountains, stretching southward from British Columbia through Washington territory and Oregon into California, we find a succession of magnificent volcanic cones capped with snow, now cold and silent, but giving evidence of fiery activity in comparative recent geological time. Some of these mountains are said to even yet emit steam and sulphurous fumes. To this line of extinct volcanic vents the peak of Shasta, the Marysville Buttes, and the many lava fields of the Sierra Nevada of California may be said to belong. It is, in fact, one great line of volcanicity from Lower California northward, and is a part only of the great circle of volcanic vents which may be traced on a globe through the two Americas and Asia, bordering the Pacific ocean. The extinct condition of many of these volcanoes within our borders may, however be more apparent than real. While lying dormant within the short period to which human observations extends, they may at any time break forth anew. There are, however but few evidences of comparatively recent eruptions, most of the lava flows being ancient and before the human period. There is, however, one exception. At a date as recent as 1850 an eruption of ashes and lava was reported to have occurred in the northern part of California, at Feather lake, in Plumas county. It was noted at the time, or soon after, by both Dr. Trask and Dr. Harkness, in communications to the California Academy of Sciences, in which the outflow of lava and its effects were described, Capt. Dutton, of the geological survey has recently visited the scene of this eruption, and describes it in a late number of *Science*. He finds the vent now covered by a large cinder cone about six hundred feet high, rising just above the western shore of the lake. The lake basin was about four or five miles long before the eruption, but the lava stream which flowed from the cone has nearly filled it up. This lava is hard and basaltic, and is over one hundred feet in thickness. The stream of lava is about three miles and a quarter in length and a mile in width. The cone is partly surround-

ed by this lava, but is perfect in form, a crater at the top. Built up of scoria and volcanic ashes, the outer layers being like coarse sand. Great quantities of fine fapilli are spread out over the adjoining country to a distance of two miles. The cone is not weatherworn, and is without vegetation except a bush of ceanothus. The trees for a distance of four or five hundred yards from the cone were all killed, and charred and decaying trunks are still lying upon the ground. Capt. Dutton thinks that the date of 1850, which has been assigned to this eruption, is correct, and that it is probably the latest volcanic eruption which has taken place in the United States.

The Devil's Footprints.—On the farm of John Mix, on the Cheshire road, two and a half miles from Waterbury, there is a rock bearing the impression of a human foot. As a curiosity this in itself may not be remarkable, but with it is connected a legend which is interesting as showing the credulity of early New England ideas. Mr. Mix tells the story as it was handed down to him by his ancestors, who have occupied the farm from the time of the first settlers. It is that there once dwelt there about a devil; that went about on one foot and one hand in a hell or lake of fire and brimstone, and by stepping on rocks heated to softness left this impression. The imprint is known to this day as the "Devil's Foot." The case is closely analogous with one mentioned by Dr. D. N. Prince in his autobiography published in 1873. He states that in Ipswich, Mass, "there was a ledge of rocks in front of the Methodist Church on which there were some curious figures or indentations, among them a print of a human foot, very perfect. And there was a tradition among the schoolboys that at some past time the devil, to show his activity, hopped over the weather vane on the church steeple and came down with such force as to sink his foot into the solid rock and leave its print as it then appeared. A short distance from this was another somewhat irregular print, which was said to be the "cloven foot."

CONNECTICUT PAPER.

We trow that the marks in the stone do resemble a human foot while a rather superstitious imagination has supplied the legend.

Seasonable Hints on Fruits.—

Fruit trees which have been recently transplanted will be greatly assisted by mulching over their roots, and for this purpose there is nothing better than partially-rotted stable manure. It is better to apply this mulching now than earlier, as, when applied at planting time, it has the effect of keeping the ground cool when it should be rather exposed to the warming influence of the sun, which encourages the growth of roots, but as the season advances, the covering will have a tendency of retaining moisture in so far that it prevents, or at least modifies, surface evaporation. If the trees were not cut back sufficiently at the time of planting and are now producing weak growths they may be cut back, which will cause them to make a better growth.

It is a well-established fact that pruning weakens trees, but when a tree is moved its roots are much abridged, and it is found that it will fare better when the branches are also shortened, which helps to restore the balance between the roots and the top.

The peach trees, so far as we have been able to observe, have set a very heavy crop of fruit. Much of this will drop before the stoning process has passed, but where the finest fruit is desired some of the smallest fruits may be removed. This can only be done well by hand and is a tedious business, but those who have practiced it find it a profitable operation, as it adds to the value of the fruit far above the cost of thinning the crop, and where but a few trees are grown for family use the result from thinning will be very satisfactory.

The Oldest Newspaper.—The oldest newspaper in the world is the *King-pau*, or "Capital Sheet," published in Peking, and since the 4th of last June issued in a new form prescribed by special edict of the reigning Emperor, Quang-Soo. It first appeared A. D. 911, but came out at irregular intervals. Since the year 1351, however, it has been published weekly and of uniform size. Until its reorganization by imperial degree it contained nothing but orders in council and court news, was published about midday and cost 2 kash, or something less than 1 cent. Now, however, it appears in three editions daily. The first issued early in the morning, and printed on yellow paper, is called *Hsing Pau King Pau* (Business sheet), and contains trade prices,

exchange quotations and all manner of commercial intelligence. Its circulation is a little over 8,000. The second edition which comes out during the forenoon, also printed on yellow paper, is devoted to official announcements, fashionable intelligence and general news. Besides its ancient title of *King Pau*, it owns another designation, that of *Shuen Pau*, or "Official Sheet." The third edition appears late in the afternoon, is printed on red paper, and bears the name of *Titani Pau* (Country Sheet). It consists of extracts from the earlier editions, and is largely subscribed for in the provinces. All three issues of the paper are edited by six members of the Han-Lin Academy of sciences, appointed and salaried by the Chinese government. The total number of copies printed daily varies between 13,000 and 14,000.

Meteorology of the Congo.—Mr.

A. von Danckelmann, a German meteorologist, has been making observations at Vivi, in the country of the Congo, and reports some curious results. During about a year that he stayed there the barometrical column did not vary more than ten millimetres; even the passage of tornadoes seemed to produce no greater effect upon it. The year is divided into rainy and dry seasons. During the latter, from May to October, no rain falls, but the earth is occasionally moistened by the depositions from fogs. From November to April heavy showers of short duration prevail, and the water falls, in portions, sometimes as high as one hundred and two millimetres—about four inches—in two hours. Long, fine rains are unknown. The country is visited by cyclones, but, while storms passing to the north of the station turned the vane in a contrary direction to that of the hands of a watch, those passing it to the south turned it in a direction corresponding with theirs. The natives burn the tall prairie-grass in the dry seasons, causing fires that last for a long time, and produce considerable meteorological effects. The air is constantly loaded with smoke, while cumulus clouds are formed over the fires and emit lighting with thunder. One of the most remarkable meteorological phenomena of the region is the existence of a southwest wind, which, beginning at sunset, blows all night till sunrise with such force as to raise large and dangerous waves on the river.

Wages in 1800.—In McMaster's History we are told workmen were paid at the beginning of this century: On the Pennsylvania canals the diggers ate the coarsest diet, were housed in the rudest sheds, and paid \$6 a month from May to November, and \$5 a month from November to May. Hod carriers and mortar mixers, diggers and choppers, who, from 1793 to 1800, labored on the public buildings and cut the streets and avenues of Washington City, received \$70 a year, or, if they wished, \$60 for all the work they could perform from March 1 to December 20. The hours of work were invariably from sunrise to sunset. Wages at Albany and New York were three shillings, or, as money went, forty cents per day; at Lancaster \$8 to \$10 a month; elsewhere in Pennsylvania workmen were content with \$6 in summer and \$5 in winter. At Baltimore men were glad to be hired at eighteen pence a day. None, by the month, asked more than \$6. At Fredericksburg the price of labor was about \$5 to \$7. In Virginia white men, employed by the year, were given \$16 currency; slaves, when hired, were clothed, and their masters paid \$1 a month. A pound of Virginia money was, in Federal money, \$3.33. The average rate of wages the land over was, therefore, \$65 a year, with food and perhaps lodging. Out of this small sum the workman must, with his wife's help, maintain his family. But then the cost of living was vastly less, and the habits of people generally infinitely cheaper. There were no art or bric-a-brac crazes.

Another Great Tower for Paris.

—Besides the gigantic tower that M. Eiffel proposes to erect for the Paris Exhibition of 1889, the center of civilization is to have another great tower, which is to be used for scientific purposes. M. J. Bourdais has presented to the French Society of Civil Engineers a project for the erection of a masonry tower 984 feet in height. After an examination of the different geometric profiles realizable, M Bourdais has adopted the column as being more apt than any other form to satisfy the rules of æsthetics, and also as being the most stable. In fact, the highest chimney in the world—that of St Rollox, near Glasgow, 433 feet in height—has been subjected to numerous storms without suffering from them, and as other chimneys exposed to great wind pressure

have never given rise to any accident, it would seem that a cylindrical form is one that should be adopted. M. Bourdais's structure would consist of a base 216 feet high, in which is to be established a permanent museum of electricity. Above this would rise a six-storied column, surmounted by a roof, forming a promenade and capable of accommodating 2,000 persons. The central granite core, 60 feet in diameter, would be surrounded with an ornamental framework of iron faced with copper. This would be divided in six stories, each containing sixteen rooms, 16 feet in height and 20 feet square, designed for ærotherapeutic treatment.

Commercial Relics of Ancient

Rome.—An interesting discovery illustrating the commerce and the luxury of ancient Rome has been made close to Monte Testaccio and the English cemetery. The whole of that district to the west of the Aventine, outside the Porta Tregemina was occupied by granaries and warehouses for the storage of imports of all kinds. Between the northern side of Monte Testaccio and the Tiber there still exists colossal remains of the great emporium built by Marcus Emilius Lepidus and Emilius Paulus nearly 200 years, before the Christian era. In the year 1868 a considerable portion of the quays was discovered, together with some 600 blocks, many of them of large size, of rare, variegated marbles of all kinds, lying just where they were landed from the galleys which had brought them from Numidia, the Grecian, the Islands, and Asia Minor, fifteen centuries ago. Now, in the course of the building operations in this locality, two warehouses have been discovered, one filled with elephant's tusks and the other with lentils. It is curious to find such products side by side; but as bags of lentils were sometimes shipped as ballast, they may have served that purpose. The discovery would have been a very valuable one if, unfortunately, the ivory had not been much decayed.

Old Libraries in the U. S.—

The Three oldest consulting libraries in the United States are those of Harvard, Yale, and the New York Society. Harvard College began its career with a library which was a part of the bequest from John Harvard, but in 1764 a fire totally destroyed its

accumulations of 126 years. Yale College began its collections in 1700, and was aided thirty-three years later by the bequest of 1,000 volumes from Bishop Berkeley; yet in 1764 it amounted to only 4,000 volumes. The New York Society's library, now containing 80,000 volumes, was founded in 1700, but did not take this name until 1724. The fourth oldest library is that in Philadelphia, founded by Benjamin Franklin and his friends in 1371. This library has now over 130,000 volumes, and in some respects is unsurpassed by any other collection of books in the country. Its income is about \$26,000 a year, of which a third only is available for the purchase of new books, yet it attempts with much success, to do the same kind of public service that is accomplished by the Boston Public Library, whose income is \$125,000.

A New Explosive.—A new explosive, known as Hellhoffite, which has been invented by Hellhoff and Gruson, has been subjected to trial at St. Petersburg, in competition with nitro-glycerine and ordinary gunpowder. It is described as a solution of a nitrated combination—naphtholine, phenol, benzene, etc.—in fuming nitric acid. In preparing the Hellhoffite tried in the experiments, binitro-benzene, a solid, in explosive and badly burning body, was used. The trials showed that Hellhoffite possesses the following advantage: 1. In igniting it with fulminate of mercury it acts more powerfully than nitro-glycerine. 2. It may be stored and transported with perfect safety as regards concussion, as it can not be exploded either by a blow or a shock, or by an open flame. On the other hand, it has the following disadvantages: 1. Hellhoffite is a liquid; 2. The fuming nitric acid contained in Hellhoffite is of such a volatile nature that it can be stored only in perfectly closed vessels; 3. Hellhoffite is rendered completely in explosive by being mixed with water, and can consequently not be employed for works under water.

A Mexican Obstacle.—One of the greatest drawbacks to Mexican prosperity is the difficulty of breaking up the great haciendas, or landed estates. Out of 10,000,000 people, 50,000 own the soil, and this fact is a great obstacle to the introduction of settlers and the springing up of those communities which in the United States flourish

along every land-grant railroad and other railroads. The difficulty of covering real estate is a dead weight on the life and progress of the country. The *Mexican Financier*, which is doing good missionary work, contrasts with this state of things the condition of Uruguay, which by encouraging immigration and settlement upon lands has nearly doubled its population within ten years, having received large accessions from Italy. Uruguay annually produces 40 per cent. more per inhabitant than any other country in South America, and enjoys peace and progress. There is no fertilizer so powerful as an enlightened, free and progressive government.

A Valuable Invention Dreamed.

—The Hon. S. S. Cox, in an address on the occasion of the Morse Memorial Exercises, said: "Jacquard, the inventor of the loom—the poet of matter—awoke one morning with a machine out of his dream. Levers, pulleys, springs and wheels made music to him in his sleep. He had another dream—this Jacquard. He made by his genius a portrait or landscape on a shawl or ribbon; but his other and costly dream was a machine to make nets." Mr. Cox called it a costly dream, because the inventor of a way to tie knots in stretched strings was arrested and carried before Napoleon, a proceeding that caused him much annoyance, but was advantageous.

Vaccination for Cholera a Failure.

—M. M. Paul Gibier and Van Ermenegen have communicated to the Paris Academie des Sciences the results of their experiments on Dr. Ferran's methods of vaccination. These biologists were appointed by their respective Governments, and they have independently arrived at the same conclusion—that by the subcutaneous injection of the cultivated virus (*Comma bacillus*) it does not preserve the animals on which their experiments have been made from the attacks of cholera.

Lake Glazier.—The newly discovered source of the Mississippi is a sparkling, little lake, which nestles among the pines of a wild and unfrequented region of Minnesota, just on the dividing ridge which forms the great watershed of North America. It is about a mile and a half in greatest diameter. The waters of the lake are exceedingly pure, coming from springs.



FOWLER & WELLS COMPANY., *Publishers.*

H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
MARCH, 1886.

AN ENGLISH PHYSIOLOGIST ON
TEMPERAMENT.

IN PROFESSOR JONATHAN HUTCHINSON'S late volume of lectures entitled "The Pedigree of Disease," some space is devoted to the discussion of *temperament* and its importance as an impression of physical condition. Temperament we are told, is essentially related to health, is *physiological* not *pathological*, and therefore a classification like Dr. Laycock's "the last and certainly by far the best attempt at classification," quoting from Hutchinson contains terms indicating the presence of the morbid element. This classification reiterates old terms like bilious, lymphatic, melancholic, which are very justly characterized as more related to disease than to health, and having on that side a rather mixed identity. With the shrewd intelligence of study and observation that has limitations, we feel compelled to say, our author is disposed to regard as untrustworthy the data of temperament, because in his belief we have "but little to guide us in a classification accepting the conditions which go to make up what we mean

by complexion," yet he can not doubt the several "fundamental modes of vital activity" that constitute and differentiate temperament. We are not surprised at the position of Professor Hutchinson with regard to such data as are indicated; but we are much surprised that a physiological teacher in a leading English medical school should not have found a better classification, or at least have endeavored to harmonize his invention by formulating a series that would better correspond to the "fundamental modes of vital activity." We are surprised, too, that he did not more thoroughly investigate the literature of the subject, whereas he seems to have relied mainly on old authors, or their later representatives. No where has temperament been more discussed than in Phrenological literature. English and American writers of this type giving their attention to it as a subject of first importance in organization. Spurzheim and Combe taking the old classification made some change in its terms and adapted it to use as best they could, but we think that it is evident they clearly enough discerned the incompetence of its definitions. The American writers, however, early expressed dissatisfaction with such a method of determining physical state, or "vital activity," and pronounced such terms as nervous, bilious, lymphatic as unsuitable and rather indicative of morbid tendencies or diatheses, than a condition of vital integrity. Hence arose the classification which for upward of thirty years has been followed almost entirely by practical phrenologists on this side of the ocean and by many on the other side—the triple classification of Motive, Vital and Mental. The difficulty of applying

the old classification to the dark-skinned and Asiatic races, a difficulty that naturally led the scientific observer to regard it with suspicion, is surmounted by the later, and as far as its being thoroughly *physiological* as a system of terminology we think that the new series must commend itself to the severest critic.

In discussing race and family qualities, Professor Hutchinson thinks that temperament should rank as an important factor, but with such views of it as he has obtained from Laycock he feels himself in a position of uncertainty where everything should be clear and definite, and therefore is compelled to make his observations without its aid. That some kind friend may persuade him to look a little further, perhaps in a direction that prejudice or ignorance has veiled from his eyes, is our hope ere he settles into the sad and unnecessary conviction that temperament is a *something* that nobody can find out.

THE HYGIENE OF POCKETS.

It is common now-a-days for trousers to be made with a pocket placed a little below the band in the back part of the garment. It is commonly termed the hip or pistol pocket. We suppose that its original designer had the convenience of those "gentlemen" in view who as a habit carry loaded revolvers, for in the slight hollow of the hip where the pocket is, an ordinary six-shooter will fit and make no suspicious show. But the pistol pocket has grown into favor for other and more *benign* purposes than carrying a deadly weapon. Friends tell us it is a very safe repository for the wallet or memorandum book, and we have noticed on certain rare holiday outings that some

of our youth who affect short jackets or fancy shirts as becoming warm-day recreations, use the back pocket for their handkerchiefs, commonly permitting a liberal section of colored border to dangle loosely outside.

Lately another use for this modern improvement in masculine dress has been discovered, and as it comes to us with the support of good authority we hasten to set forth its character. A medical man tells us with a good show of argument that the hip-pocket is hygienically valuable to correct the general tendency to one-sidedness and stoop-shoulders among boys and young men, and he thinks that it would be a good plan for society to abandon the side pockets for the male members of the rising generation. With two pockets only and those at the hips in the back of the trousers, the boy who likes to have his hands in his pockets, and what boy doesn't? would be required to assume a pose tending to draw his shoulders backward and to project his chest, and thus a habit of exercise beneficial to lungs and heart would be cultivated, and in the outcome of it we should have fewer round-shouldered, consumptive, dyspeptic men.

We indorse the wisdom of this counsel, and would urge our readers to adopt it pretty generally, man and boy alike. And we would add a word for the feminine side of humanity, because the hygienic value of this idea affects women as much as it does men. We have indeed more one-sided, stoop-shouldered, weak-backed girls among us than boys, and that they may be straightened up, made harmonious, symmetrical and strong must be the common wish of society. Put hip-pockets in their dresses,

jerseys, sacques, and let them as well as the boys have a chance for lung growth, health and beauty. Here is a suggestion for our hygienic, new-costume, dress-reform lady friends that we suppose they will instantly and enthusiastically accept and practically apply.

SIGNOR MIRAGLIA, THE ITALIAN PHRENOLOGIST.

Italian science has developed several names of distinction in Phrenology, men who early accepted the doctrine of Gall and Spurzheim, at least, so far as the general principle of localization are concerned. Dr. Fossati was a man of commanding influence thirty years ago, and his death, although at an advanced age, was a reason of no little regret on the part of advanced minds. Now we have occasion to record the recent death of another brilliant observer and worker, a man who, joined to an earnest desire for original investigation, motives of a high philanthropical character, and who in his way might be said to have been an Italian Pinel, since he labored during a good part of his life for the improvement of methods in the treatment of the insane.

The *Journal of Mental Science* London, in a late number gives an interesting and appreciative sketch of Prof. Bragio G. Miraglia, who was born Aug. 21 1814 at Cosenza in Calabria, where his father was a magistrate. In spite of delicate health he early showed literary and artistic ability. Inclining toward medicine, he pursued the requisite course of study and afterward began to practice in a somewhat remote district of Calabria, but soon returned to Naples where his abilities made him known. He was ap-

pointed on the staff of the Royal Asylum of Aversa and became the Director of this institution, devoting himself to its improvement in every department.

While a young man he was drawn to an examination of the philosophy of Gall, and becoming convinced of its substantial basis in nature he openly advocated it, and was from that time on an earnest student of Phrenological science. He established the Society Phrenopatica Italiana, a literary and scientific society; published a large number of essays on different medical, physiological and medico-legal subjects. From 1860 to 1868 he edited the *Phrenopatica Italiana*, which he established, and also issued detailed reports of the Asylum at Aversa. Perhaps that work of his which is of the highest importance is embodied in a treatise entitled *Trattato di Phrenologia applicata alla medicina giuridica prudenze*, a treatise on Phrenology applied to medicine and jurisprudence, which was published in 1853. This, as the *Journal of Mental Science* says, contributed more, probably, than any other Italian work to spread and enlarge Gall's system. His life was a striking example of devotion to his profession and to science. He was as ardent a student at the age of seventy as at the beginning of his career. When such men leave us we can properly assert that the world has suffered loss. There are many occupying conspicuous places in the walks of scientific investigation, but very few that show the spirit of Miraglia, who in the late maturity of age was always eager to welcome new truth, and especially that which has relation to human nature on the side of its advancement.

MEDICAL MISSIONARIES.

In the February number an article was published describing a new phase in organized missionary endeavor—the association of trained medical skill with the teaching of moral and religious truths. The fact has been evident enough for many years that the best success in those fields of effete civilization and inveterate paganism, China, India and Africa, was reaped by the missionary who possessed some ability as a physician and could minister to the bodies diseased of the people among whom he lived. In India and China the medical missionary has usually found himself overwhelmed by applicants for the treatment of all sorts of affections, and those who experienced relief from pain and distress were not unwilling to hear the spiritual message that their benefactor had to deliver.

The earliest Gospel teaching of which we have any record was associated with that of the healer. The disciples were invested with power to cure the sick and even to raise the dead, and such extraordinary power drew multitudes to them wherever they went. The missionary who goes into a remote Asiatic district to-day finds people not unlike those of apostolic time—ignorant, oppressed, superstitious, a large proportion suffering from a variety of maladies that their own rude attempts to treat only aggravate. If he can only stand up and repeat the story of Christ and the promise of the Gospel, native prejudice and mistrust, prevent him for a long time from getting a footing in the place. But if he can take some of the sick ones into his house and from a practical knowledge of pathology and normal therapeutics give

them treatment and improve their condition, he at once finds favor with a large class and the best opportunities are given for his religious teaching.

Here is a field for woman that is one of the most useful that can be entered upon. In some parts of the East women are by far the most efficient as missionaries. In Japan, China and Turkey women can go where men are entirely excluded, and if they carry with them a knowledge of medicine they are welcomed by the female population most cordially, and it is said that they can easily make their place self-sustaining. Probably five thousand women trained as physicians could to-day find abundant room for labor in the countries mentioned, and do an incalculable amount of good work, both physical and spiritual, in a short time.

We wonder that several institutions like that organized by Dr. Dowkontt in New York were not started long ago. But now that the principle of medical missions has taken this concrete form we shall expect to see it generally applied, as it should be, in the training of men and women for missionary service in foreign lands.



PROGRESS AGAINST PREJUDICE.—“God help the patients!” groaned the physicians of England, with one voice, when the London Temperance Hospital was founded. But that institution, by reason of the results which it has accomplished, now challenges the admiration of the medical profession. Since its establishment, 3,000 patients have been treated, and alcohol has been prescribed in only five cases. Yet the death rate has averaged but five per cent.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication :

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

MARTYRS AND VITATIVENESS.—F. B. W.—We doubt not that the victims of the Inquisition had an average development of Vitativeness, as a rule. The fact that a person will sacrifice life for religious belief is not evidence against a good degree of the organ since no feeling or instinct will carry one to a greater extreme of endurance and suffering than the religious sentiment. The amount

of torture one will submit to before dying may be taken as an evidence of the strength of this organ; and if some of the accounts are true of martyrs having been gradually mutilated, even to the loss of arms and legs before falling into the unconsciousness of death, they must have possessed an amazing degree of vitality and Vitativeness.

OUR MEDICAL "SCHOOL."—M. J. K. asks: To what particular school of medicine do the members of your Company belong?

Answer.—We belong to that advanced school that believes in the virtues of right living; that obedience to the laws of physiology and hygiene will prove the most effective means of securing and preserving health. A carefully ordered diet, cleanliness, comfortable clothing, out-of-door exercise are the leading agents in our *materia medica*. We attach chief importance to prophylactic or preventive measures, and relate curative processes to them. The Editor, it may be said, has given special attention to nerve diseases because of the great and increasing demand for advice in that complex branch of modern pathology, but here we are satisfied, as in regard to other branches, that nearly all acute and chronic, local and general nerve affections are due to false methods of living, or to improper and vicious practices.

A FORLORN DISTRICT.—W. P.—We are sorry that you find yourself in so unsympathetic a region of Missouri, and hope that in your professional relations that you will do your best to enlighten public sentiment with regard to the principles and practice of scientific Phrenology. A physician has opportunities that do not occur to most other men for illustrating the facts of mental science, and they can often redeem its credit when injured by impostors.

THE NEW JERSEY JOKE.—Question: A great many people, especially among those who live in New York City are inclined to allude often to New Jersey as a "foreign country," and very few, we dare say, could give the origin for the rather stale joke thus perpetrated. At least I don't find any who

can give me a definite answer when I ask for information. Can you tell me?—B.

Answer: It is said to have originated in this wise: After the downfall of the first Napoleon, his brother Joseph, who had been king of Spain, and his nephew, Prince Murat sought refuge in the United States, bringing with them great wealth. Joseph tried to induce several states to pass an act to enable him as an alien to hold real estate, but they all refused. Finally, the New Jersey legislature granted to him and Prince Murat the privilege of purchasing land. They bought a tract of land at Bordentown, built magnificent dwellings and fitted them up in royal style with pictures, sculptures, etc. Joseph Bonaparte's residence was the finest in America. He was liberal with his money, and made many friends. The Philadelphians were envious of the good fortune of the Jerseymen in securing the two millionaires and taunted them with being "foreigners," and with importing the king of Spain to rule over them.

PERSONAL ADVICE. — H. G. — The editor has already written to you, stating the conditions on which he will give you advice. As you will find at the head of this department, questions of a general interest only are to be answered here. Personal matters can not be considered properly, and such matters especially as are of medical nature. When the question is opportune and hygienic advice of a general application can be given, it is always given in its order.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

Presentiment What Good?

I should like to ask C. H. Bliss if he can keep out of danger by being warned. He says he has been warned of danger by impressions. My experience thus far has led me to believe "What is to be will be." I have had dreams that came to pass, have had impressions, but did not know what course to pursue to avoid the threatened danger. A few years ago I had a presentiment of trouble. I plainly saw my enemy with a black spot on the side of his nose, but I could not afterward recollect his

countenance. I saw or seemed to see two different buildings and knew in what city each was situated. I remember now just how each looked. I have seen the enemy; he placed his finger which was stained with ink at the side of his nose and left a spot somehow. I did not think at the time about my presentiment, but afterward when I did I thought I would keep him from being an enemy if possible. I could see no cause for his being unfriendly, I treated him respectfully no matter what he said or how he acted toward me. I did not return evil for evil, but as it turned out he seemed determined to be the enemy and so has proved. I could tell more about this if I thought it interesting. The vision or whatever you may call it lasted nearly an hour. Every thing has occurred just as I was impressed.

When a little girl, my parents, myself and the rest of the children went about eight miles from home to gather berries; as we alighted from the wagon my mother stood still and gazed before her with countenance pale. I stepped to her and asked "What's the matter, mother?" Still she gazed, sighed, said nothing, and finally went to work with us in the field. In a few days she received a letter from Massachusetts, her former home. Before opening it she sat for a moment in the attitude of prayer. Afterward she said that she already knew what that letter contained, it was the news of the death of her mother; and so it proved. She saw the funeral procession when she alighted from the wagon on the berry trip. Then she did not even know that her mother was sick.

M. G.

Force of Character.

It is a mistaken idea that force of character necessarily results "In abrupt, uncourtous manners." Force of character consists in the development of will power in the various mental capacities. It is the guiding power that makes all things possible. There are none of us, no matter how secluded our lives may be, who do not feel the need of such a factor in our lives.

"Assumed independence" is *not* force of character. That is a spurious article, not genuine. The little every-day traits that are not conspicuous, the natural expression of our ideas in unguarded moments are what express the strength of our character. Does Mrs. Horr think that all people who

have force of character are never amiable, unobtrusive, or undemonstrative? Such has assuredly *not* been my experience. One of the most loveable characters I ever met was one in which force was the leading power. There is force in the air, force that would crush us, if it were not equably distributed over the earth. It is not necessary that "morally all should be severe, stern," to be forcible. It is not always true that "the bravest are the gentlest," for some brave men have been cruel, but it is true that those who are both brave and tender are the ones who have the most influence.

Neither do I wish our shrubs to be changed to oaks, our violets and snow-drops to dahlias and sun-flowers. But does it not require as much vital force on the part of the violet or snow-drop, as on the part of the dahlia or sun-flower, to grow and bloom under the circumstances of life? The influence of the lovely, modest little violet is typical of the true character of many great men. Is there a flower better known or whose history is greater than that of the violets? Who can separate the memory of Napoleon Bonaparte from that of the violet? The force of its influence on his heart is known wherever his name is.

Did it not require as much force of character to make a Ruth as a Judith, a Cornelia as a Dido? Surely Peter Cooper, and Longfellow, had as much of the article as Washington, or Wellington.

"It was this force that was typified in past ages by the giants . . . who, however they might triumph over the innocent and unprotected for a time, were eventually slain or taken captive by the brave and gentle knights, working in the name and through the power of love." It should read "through the force of love." That does not diminish the necessity of force, it only shows that the force of love is stronger than the force of mere physical strength. Still, physical and moral strength combined have a greater and nobler force than either can have separately.

We do not wish to separate force from tenderness or gentleness. What would tenderness amount to if it did not have force enough to manifest itself? What would any of the elements of our minds amount to if the unseen forces of our nature did not force them into development? Florence Nightingale surely did not lack courage, self-denial, faithfulness, generosity, or any

of the other qualities requisite in forming a beautiful and harmonious character, but her character is beautiful by the very force of these qualities. There is a difference between "force" and "grit, spunk, etc.," to my mind "grit" is used to signify tenacity of purpose. Force is the element which penetrates all life, like the fragrance of the rose, subtle, penetrating, pervading all qualities and characteristics, unnoticed, often unknown, and unhonored, but without which those qualities would be profitless. Force is something from which we can not escape, and the best thing to be done is to direct it in the proper channels. E. M. P.

JOURNALISTIC MISREPRESENTATION.—L. S. —A great deal of bosh is published in the columns of respectable newspapers with regard to the brain and men of brain. It seems to us that there are some people who are very anxious to make a reputation by writing and publishing statements on the physiology of the mind that are right contrary to well ascertained facts. What you quote from New York *Tid-Bits* is of a piece with this. The article begins with a practical insult to Anthropology, and such men as Broca, Tiedemann, Delaunay, Dalton, Ferrier and other modern physiologists. There are no authentic measurements to show that Alexander the Great or Julius Cæsar or Heroditus, or Plato, or Aristotle, or Epicurus, or Lord Bacon, or Frederick the Great had small heads. Because the portrait on an old worn coin shows a head with a receding forehead, and is allied to a distinguished historical name, does not prove that the person so named had a small head and no man with any scientific knowledge would claim that it did. Lord Byron did not have a "positively small" head; it is stated in the books that Byron's brain weighed between fifty and sixty ounces, five or six ounces above the average. Plato was so named because of the breadth of his head; his original name was Neanthes, we think. How about modern great men? Bismarck, Gladstone, Evarts, Parnell, Dr. Storrs, and others of pre-eminent distinction, are their heads not large? Then, too, the statement with regard to the old Greek sculptures is unfortunate. We never saw a classical representation of Jupiter, or Apollo, or Minerva that was not large in the forehead. The heads, however, of mythology that simply represented physical and passional elements such as Venus, Bacchus, etc., are distinguished by large back heads and rather small, and low foreheads. Our only appeal is to truth; and we heartily wish that those newspaper men who attempt to write about the brain and heads would study physiology a little, and make some systematic observations before touching ink.

PERSONAL.

REMBRANDT'S life was one of those careers that are not so very unusual in the allotments of Fortune to genius. It is for the most part a sad story of bankruptcy, neglect and poverty. After Rembrandt's failure, his son Titus, entered into partnership with Hendrickie Stoeffle, who had been a model, for the business of selling prints, and the young man travelled about Holland offering for sale his father's etchings. But they were not successful; misfortunes accumulated and the master survived both, leaving nothing when he died but his clothes and the furniture of his studio.

When MARIE MITCHELL, the well-known professor in Vassar College, turned her 67th year not long ago, the undergraduates made her a present in honor of the occasion, a jelly cake composed of sixty-seven layers. The account of the pleasant affair stops at this point, but every one may be sure that the students looked out that each had a good chunk of the cake.

PROFESSOR WELCKERS of Halle announces that the body resting in the Weimar mausoleum is not really that of Schiller. This he professes to have proved by comparing the skull with the cast of the poet's face taken immediately after his death. Having seen a cast of the so-called skull of the poet, we add our belief to Prof. Welcker's that there is some mistake, as the cast in no way corresponds to the received bust.

WILLIAM BENJAMIN CARPENTER, one of England's most eminent physiologists, and well known in America by his numerous works, died in London, November 10th last, from the effects of terrible burns caused by the upsetting of a lamp while he was taking a vapor bath. At one time a defender of alcohol he later became a friend of the temperance interest.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

Whatever tends to realize and to strengthen true self-respect, promotes human welfare. This talent and that may seem great to us, but good sense with sterling honesty makes character noblest.—*Drayton*.

He who has a thousand friends has not a friend to spare,
And he who has one enemy will meet him everywhere.—*Emerson*.

You may labor against vain glory till you conceive that you are humble, and the fond conceit of your humility will prove to be pride in full bloom.—*Spurgeon*.

—Whatever the number of a man's friends, there will be times in his life when he has one too few.—*Democritus*.

—There is no defense against reproach but obscurity; it is a kind of concomitant to greatness, as satires and invectives were an essential part of a Roman triumph.—*Ad-dison*.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

—"Hello, Judson, how are you?" "Pretty well, thank you." "How are you at home?" "Wife says I'm rather grumpy."

Grocer: "Half a pound of tea? Which will you have, black or green?" Servant: "Shure, ayther will do. It's for an ould woman that's blind!"

Pompous physician to patient's wife: "Why did you delay sending for me until he was out of his mind?" *Wife*: "Oh doctor, while he was in his right mind he wouldn't let me send for you."

The ladies were talking about their old silver and the newer designs, when Mrs. Oldblossom said: "I use nothing upon my table but hammered ware." And just then, as a crash of resounding china came from the kitchen, she added, "And there's the artist hammering some of it."

"Ephrum, what makes so many cat-tails grow in dis heah pon'?" "Wull, I would say! Doan you know? Why, dey grows up from kittens dat people hez drowned in de pon', of course. Pea's like you wimmen folk, doan know nuffin 'bout agriculshah."

—"Uncle James," said a Boston young lady who was spending a few days in the country, "is that chicken by the gate a Brahmin?" "No," replied Uncle James, "he's a Leghorn." "Why, to be sure," said the young lady. "How stupid of me! I can see the horns on his ankles."



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

PLURAL MARRIAGE.—The heart history of Adele Hersch, By Veronique Petit, 12 mo., pp. 99. published for the author by Norton, Ithaca, N. Y.

A very tastefully executed little volume as to printing and binding, quite a novelty in fact. The story is told journal-wise which adds to the effect of naturalness. Besides, it bears the marks of careful authorship, and the impress of a tender-hearted woman on every page. A solution of the enigma of the apparent peace in Mormon households is given by Adele Hersch in her records of the intimacy between herself and the "sealed" wife, who had a half-interest in Adele's beloved husband. The spirit of the work is adverse to polygamy, which may be easily inferred, yet with all its earnestness the faults of that system are so temperately told that we can not reasonably impute mere prejudice or a bigoted hostility to the author. There is feeling, as well as true logical method in Miss Petit's treatment of the very grave, social and political question, and as we read, we can not help believing that she understands it, and writes for her country as well as for the honor and dignity of her sex.

WEBB'S NEW WORD METHOD.—An independent First Book for teaching children to read; 12 mo., pp. 150; price 24 cents; Potter, Ainsworth & Co., New York.

The text of this book is illustrated with good taste, the typography is excellent, and the binding has been done with the memory of school-day carelessness almost haunting the workmen. It will prove a reasonable, durable book. Of this method many commendatory letters have been written by such eminent educators as Dr. N. A. Calkins, P. of. Bellows and Dr. Wells.

If reading can be made *easy* for little children, Mr. Webb has certainly accomplished that end, for he has illustrated with a rare knowledge of childhood's fancies every attractive principle appropriate to the purpose.

SYLVIAN: a Tragedy, and Poems. By John Philip Varley, 12 mo., pp. 203. Price, \$1.25.; Brentano Brothers, New York.

Mr. Varley, we may say, has succeeded in his tragedy in depicting fairly the "passion torn" side of young life, that period when the humors of love appear to be stronger in most people than good, intellectual judgment. The general style of the work, action, language, etc., are mediæval, and while these may please the romantic, they who read between the lines will, we trow, better understand the motive of the author. Much variety of motive and measure is shown in the "Poems." We are inclined to think that a spirit of cynicism or sarcasm lurks in the lines of a large proportion. Although in the lyrical pieces there is indicated a warmth now and then that will please even an admirer of Rosetti. No fault can be imputed to the publishers; they have produced the volume in a style that is delightful to the lover of good book-making.

PUBLICATIONS RECEIVED.

THE AMERICAN JOURNAL OF INSANITY for January contains a valuable list of topics in its special line. A paper by Dr. H. A. Buttolph of New Jersey is given first place. It is a review practically of the Gallian or Phrenological doctrine of the Physiology of the Brain, and a powerful discussion in favor of organic localization. "A Visit to Gheel," and "Senile Melancholy" are other well-prepared contributions. Dr. John Gray, Editor, Utica, N. Y.

THE BRITISH QUARTERLY REVIEW for January contains important essays on "Mr. Arnold and his Discourses in America," "The Greville Memoirs," "The Established Church and its Defenders," "Personal Memoirs of Ulysses S. Grant, etc." Leonard Scott's Pub. Co., Philadelphia.

THE CENTURY MAGAZINE for February is particularly attractive in artistic efforts. "The Dance in Place Congo" illustrates old New Orleans life in a novel fashion to most readers. "Recent Architecture in Amer-

ica," brings New York prominently for richness of private mansions. There are a half dozen articles on the late war more or less illustrated. The Open Letters, Bric-a-brac, and other departments are well sustained with current notes.

HARPER'S MAGAZINE for February keeps well up to its later standard, in art and literary respects. Papers are given on the "British Navy," "The Blue Grass Region of Kentucky," "Manual Training," "Education as a Factor in Prison Reform," besides the attractive instalments of fiction and the contributions of an exceptionally strong corps of editors. Harper Brothers, New York.

THE CALENDARS for 1886 are almost "too numerous to mention;" among the business firms who have thus catered to the popular taste, we would name Corlies, Macy & Co., Account Book manufacturers, 39 Nassau street, New York, Germania Fire Insurance Co., New York, Standard Electric Clock Co., Houghton, Mifflin & Co., Boston and New York, "Youth's Companion," Perry, Mason & Co., Boston, Mass. W. H. Butler, Lithographic Printer and Publisher, Philadelphia. With such beautiful decorations of the desk, the donors have secured for themselves remembrance during the year at least.

THE POPULAR SCIENCE MONTHLY for February offers several papers of merit on topics of current interest. Among them an illustrated account of "The Improvement of East River and Hell Gate," by General John Newton; "The Interpreters of Genesis and the Interpreters of Nature," by Professor Huxley; "Influence of Inventions upon Civilization," "The Musket as a Social Force," and two biographical sketches, Dr. William B. Carpenter, the English physiologist, and James B. Eads, are particularly notable. D. Appleton & Company, New York.

PROCEEDINGS OF THE SOCIETY OF PSYCHICAL RESEARCH PART 9, DEC. 1885.—Just received through the courtesy of the secretary, is a bulky document. The report on Phenomena connected with Theosophy, occupies more than one-half of the space, nearly two hundred pages with numerous plates or appendices. Other points of interest are Somewhat higher aspects of Mesmerism, Further reports on experiments in Thought transference, Local *anesthesia* as induced by Mesmeric passes. If one is to judge from the size of the latter reports of the Society,

subjects which now engage their attention possess a peculiar interest. However, it must be understood that the gentlemen and ladies concerned in these investigations are in earnest, and intend to discharge their duty conscientiously. Price of the part, 4 shillings 6 pence, English.

AN IDYL OF NANTUCKET.—The Rev. Robert Collyer, of New York, has rendered the æsthetic public a pleasant service by publishing in tasteful form, an old-time letter written by a modest maiden in Nantucket in the year 1745. For an evening's reading scarcely anything more delightful has appeared this winter. It is a sweet bit of Puritan home life that makes our modern social fictions appear hollow enough.

THE DIETETIC REFORMER.—Organ of the Vegetarian Society of England, adds to its quality of usefulness a price that brings it within the reach of the poorest, being but two pence, or four cents a number. It always contains a variety of information from the best sources relating to normal dietetics. Its department, that relates to cheap foods, recipes, and so on, is of great value to those in moderate circumstances.

CURRENT EXCHANGES RECEIVED.

Parry's Literary Journal, Parry & Co, Salt Lake City, Utah; World Travel Gazette, Monthly; World Travel Co., New York; Youth's Companion, Perry Mason & Co. N. Y.; The American, R. E. Thompson, Philadelphia; The Central Law Journal, W. H. Stephenson, St. Louis, Mo; Building, W. T. Comstock, Pub. N. Y.; The Standard, J. A. Smith, Chicago, Ill; American Art Journal, W. M. Thoms, N. Y.; The Journalist, W. G. McLaughlin, N. Y.; The Cultivator and Country Gentlemen, Luther Tucker & Son, Albany, N. Y.; Yale Courant, Yale College, New Haven, Ct; Banker's Magazine, Albert S Bowes, N. Y.; Scientific American, Munn & Co N. Y.; Journal of Education, Boston and Chicago; The Cincinnati Medical News, J. A. Thacker, A. M. M. D. Cincinnati, O; The Western Rural, Milton George, Chicago; Sanitary News, G. P. Brown, Chicago; Voice of Masonry, John W. Browne, Chicago; Leisure Hours New York; Catholic Review, New York; The Journal of Materia Medica, New York; National Temperance Advocate, J. N. Stearns, New York; Germantown Telegraph, Germantown, Pa; The Folio, White Smith & Co, Boston and Chicago; The Nation, New York; Saturday Evening Post, Philadelphia.

AMERICAN INSTITUTE OF PHRENOLOGY.

Institute Extra.*

Devoted to the Interests of the American Institute of Phrenology.

No 15.]

MARCH.

[1886.

BEFORE THE AMERICAN INSTITUTE OF PHRENOLOGY was chartered, many classes in Phrenology had been taught and from such brief courses of instruction not a few excellent and successful workers had entered the field. Others had taken a lesson or two, simply that they might be able to say that they had received instruction, and thus secure the confidence of the public. Some of these did poor work which was a damage to the subject and to those who were supposed to have been their teachers. Accordingly the leading friends of Phrenology, deprecating the lack of knowledge on the part of some who were lecturing, resolved to establish a Normal Institute, in order that the public could be supplied with lecturers and examiners who had enjoyed opportunities for instruction in the principles and practice of Phrenological science, applied for an act incorporating the AMERICAN INSTITUTE OF PHRENOLOGY, which was passed by the Legislature of the State of New York, April 20, 1866, with the right to hold real estate to the amount of one hundred thousand dollars ; to collect and keep for public exhibition a museum of busts, casts, skulls, and portraits illustrating Phrenology and Physiology ; to instruct pupils, grant diplomas, etc.

NELSON SIZER, *President.*

C. FOWLER WELLS, *Vice-President*

HENRY S. DRAYTON, A.M., M.D., *Secretary.*

By action of the Board of Trustees, the FOWLER & WELLS COMPANY has been appointed financial and business agent. All communications should be addressed,

FOWLER & WELLS CO., 753 BROADWAY, NEW YORK.

CLOSING EXERCISES OF THE SESSION OF 1885.

OPENING REMARKS BY NELSON SIZER, THE PRESIDENT.

The time has come for us to close the exercises of the American Institute of Phrenology for the year 1885 ; and on occasions like these when we gather for the last time as teachers and pupils, and look forward and not backward, we exchange words of sympathy, affection and hope. The past of our acquaintance has been pleasant, and the memories of that past, at least, are secure. Life is before us, progress and prosperity may belong to each one of the students, and we can only hope that all that is desirable shall be theirs. It now remains for us to make a few speeches, deliver the diplomas,

and call our labors ended for this session. We will first call upon the Vice-President, Mrs. Wells, for such remarks as she may wish to make.

ADDRESS OF MRS. WELLS.

MR. PRESIDENT, FRIENDS, STUDENTS. It is both painful and pleasurable to reflect that this is the last time we shall meet as we have been doing for the past few weeks.

You have secured your object in coming, namely, to listen to the best teaching we could give you. Have you learned as much as you hoped to? Perhaps you have learned something you had not expected, and some queries you desired settled may be

queries still. We too are learners daily ; we do not profess to know everything, our purpose has been to explain what we have learned as far as we could.

You must be up and doing and therefore the farewell hand-clasp and the "God-be-with-you" can not be long delayed. We must all be about our Master's business, though in different directions. Let us be faithful to our trust and success and happiness will be ours. In anticipation of such results we have a pleasure as well as pain in the approaching farewell.

Since the session of 1884 we have lost by death, one of our friends, a warm lover of Phrenology in the person of Miss Jane Middleton. Since the opening of the Institute in Jan., 1866, nearly twenty years ago, she has made it a point to attend as many lectures of every session as her duties in other directions would allow. She was truly a lover of the Science, and introduced it whenever and wherever she could make an opening for it. Truly she did what she could, and she has our hearty thanks for her endeavors in that direction.

For more than forty years she attended our classes, for we had many classes previous to the establishment of the American Institute of Phrenology, and she and her mother used always to attend them until her mother's death, after which Miss Middleton continued to come ; her heart was in the work, and she felt strongly the importance of a "Home for Phrenology," as Mr. Wells called it ; that is, a permanent place for the cabinet and the Institute lectures and the office for the publication of the JOURNAL and other Phrenological and Physiological works, and about two years ago she brought in and showed me a \$1,000 United States Bond, which she said she should leave toward the attaining of that object, unless she should require it for her own support, but she died suddenly before she had fixed the matter in her will in such a manner as to carry out her purpose ; so the Institute loses that sum in aid of the "Wells Memorial" as she was pleased to call it.

Several years ago, since Mr. Wells' death, a gentleman of this city and his wife willed all their property for the same cause. They were Scotch people, admirers of Combe and lovers of our Science, always bought our

books as fast as we published anything new, attended our classes, subscribed for the JOURNAL, brought their friend for examinations and advice, and exerted what influence they could to induce their acquaintances to avail themselves of the benefit to be obtained from Phrenology.

Their own wants were few and simple. They lived hygienically and inexpensively and placed their income as fast as it accumulated in a bank—which failed. Since then the wife has died. Whether we shall receive anything finally is yet to be seen, but I trust that in the good time coming the right thing will be accomplished and that it will be in the heart of *some* men and women to give to this cause, instead of where it is not needed. God speed the day.

There are two ways to discharge a supposed duty. One is through the dictates of Conscientiousness, Firmness, Self-esteem, Veneration, Combativeness and Destructiveness. Usually the result would be a repulsion instead of attraction. The other method is under the influence of Conscientiousness, Hope, Veneration, Self-esteem, Benevolence, Agreeableness and the Social Organs. Under the dictates of these, one can say the needed words at the right time and place, can advise in such a manner that it will be as a command and lead to the desired end without coercion.

It is said that some moral teachers attempt to drive or frighten people to Heaven. An appeal to their better nature if you wish to benefit one will secure a better effect : then your counsel will be "like apples of gold in pictures of silver," valuable and both acceptable and beneficial. The blessings you will bestow will return to you two-fold. In blessing others you will yourselves be blessed.

Put your trust in a higher power, seek wisdom from the true source when your own seems to you but folly, do the best you can and rely upon yourselves as far as you are able.

Those who were so fortunate as to attend the lectures of the Institute while Mr. Wells was here, congratulated themselves after his death that they were students under his administration. Our Mr. Sizer must teach his last class sometime, and you may well appreciate the fact that you are permitted to listen to his instruction. Will there be

some one ready to take his place? Perhaps some one of the class of 1885 will be needed. Be ready for whatever station you can best fill.

ADDRESS OF DR. DRAYTON.

MEMBERS OF THE CLASS: You have been thinking lately—probably more than you were accustomed to think in the same direction before coming to attend the institute—of the importance of life and the necessity of fitness for the work the world has for you. If there is one thing that has been more conspicuously presented to your inner realization than others, it is true manhood, and the obligations that grow out of true manhood. The distinguished Canon Farrar, in a recent address, remarked that of the many admirable sayings reported of President Garfield, nothing struck him more than what he said when a boy—"I mean to make myself a man. If I succeed in that I shall achieve success in everything else." And the worthy Canon went on further to comment that a man has been defined as one whose body is trained to be the ready servant of his mind; whose passions are trained to be the servant of the will; who is taught to admire the beautiful, to hate violence, to respect others as himself. This is the end of self-training, and it may be said—this is the end of Phrenological training.

Here in brief is your work my friends. We have sketched it more elaborately during the term now about closed. In making yourselves true men and women you lay the foundation for excellence which you may not in any other manner attain. Endeavor will greatly advance one toward the mastery of himself, and in that mastery he learns best how to teach others to control and master themselves.

Governor Morton at 54 years of age said "I am dying—worn out." What a confession of weakness! what a confession of wasted powers, of faculties brought under the exciting spur of ambition and false pride! Strained to their utmost they gave way exhausted, at a time when the man should have been at the zenith of his capability. What a confession of imprudence

and prodigality, and how bitter the regret when too late! There are many great men whose hair is blanched with years—Gladstone, Bright, Bancroft, Whittier, Mark Hopkins, Chevreul, McCosh. Virchow, De Lesseps—some of them long past three-score and ten, but still earnest, active, workful, helpful, esteemed and beloved by great communities. Labor to such men is grateful; their trained faculties enjoy the stimulus of activity; a harmonious physical organization responds promptly to the requisition of the highly developed brain. To such men rich in experience, potential in faculty, grand in motive "Labor in the path of duty springs up like a thing of beauty," and is conservative of their energy.

Intellectual gifts of a high order, I know, are a privilege of the few, but a good use of what we have is the potentiality of all. I think that the great truths of mental science do not belong to the mysteries, but are simple; the common mind can apply them. I am sure gentlemen that you recognize this fact now, and realize it as you never realized it before. It is no supercilious affection to say in this place that you have been surprised at the simplicity that characterizes the general order of the mental constitution; and at the same time your wonder has been increased in considering the unlimited range of the thought function. You have at your command a definite procedure for the study of mental action, and you know its practicability for harmonious self-development and the attainment of the best usefulness.

We have in this short course endeavored to show you the purpose of being—the grand motives that should be clearly seen by every man and woman, and which are gathered up in that homely apothegm we call the "Golden Rule." Even as the teachings of Phrenology unfold the sources of human conduct, so when appreciated by the student they broaden and deepen his sense of responsibility as a member of society; he feels more and more that he is his "brothers's keeper;" that he has a holy mission whatever may be his sphere—a mission of honest, sympathetic, generous manhood. In the performance of this mission his highest faculties are awakened.

God and nature aid him. If there be "ministering spirits," and I believe there are, they are whispering sweet words of hope and faith. He finds enjoyment in life, and pities the sneer of a Clifford or a Schöpenhauer; while he confirms the sentiment of Greenwood that "A truthful, honest, industrious man or woman is a high type of the best civilization."

Yes it is true that great intellectual gifts are the possession of a privileged few; but we can glory in the fact that the common mind can grow in capability of enjoyment of the true riches of life; that to it dignity and growth will be added through the inspiration that will flow from high aims and an unselfish course of action.

It is related of an ancient king that through his dominions a river ran, bearing sands from a mountain miles away, and mixed with those sands were grains of gold. He ordered that the golden grains should be carefully sifted out and placed in his treasury, and in time the accumulation of wealth was enormous, incalculable. Gentlemen in your relation with the world there are opportunities for gleanings much of the purest gold of truth, which in turn you may bestow upon your fellows, enriching them not only for time but for eternity—not like the king merely accumulating a great store to lie cold and inert in the closet of obscurity. If we have added to your capability of gleanings truth, we have also added to your responsibility to bestow truth; and in proportion to your zeal in scattering benefits upon the hungry and needy will your own souls be filled with light, and your powers of beneficence be extended.

If I were asked by you individually for a word of advice, I could hardly do better than repeat some of the solid maxims of Hoffman, "Avoid excess in everything; respect old habits even bad ones: keep a quiet conscience, a gay heart, a contented mind." In this spirit you will find a welcome as you mingle with men, and your word and work will benefit them. I would not have you satisfied with mediocre work, the result of mere average effort, but like Landseer be ashamed of it when you could have done better. It is a constant uplooking that makes the noblest man.

ADDRESS OF E. P. TWING, Ph. D.

MY PARTING WORDS TO YOU, fellow students, are brief, but cordial and emphatic. I can not do more than to accentuate the leading thoughts that marked my lectures to you on the Phenomena of Mind. Be zealous seekers after knowledge. Study history, science, art; the books of the rabbi, the rolls of the seers. but above all, study men. Study with patience, for it is a life-long work. Replying to a youthful architect, whom he met in a Coliseum, Michael Angelo at ninety, said, "Yes, I still come to learn."

"The highest mountain mind
Still sees the sacred morning spread
On silent mountains overhead."

Learning is but an Alpine ascent. "Alps on Alps arise." Let not your zeal flag. Keep up your habits of private study, no matter how urgent your business or professional life may be, "Not a day without a line." It will tell in the long run, not only in building up your reputation which is a transient thing at best—but your character, that eternal fabric which will stand when the pyramids are dust.

"When the stars grow old,
And the sun grows cold,
And the leaves of the Judgement Book unfold.

Recall and often ponder upon the significance of minute phenomena occurring about you illustrative of the theme we have studied.

Remember what I said about the windows of character, always open in spite of the efforts often made to close and cover them. Look into the windows open about you, and specially see to it that your own reveal nothing within unworthy of inspection. Let every glance and gesture, every footstep and utterance reveal genuine honesty, purity, and purpose. Remember that on the most trivial thing you do or say may hinge the weal or woe of some immortal soul.

Agassiz tells us that he once stood upon a Swiss mountain, where at will, he could toss a chip to the left, so that it would reach the German Ocean by the cataracts of the Rhine, to the right, to reach the blue Mediterranean by the Rhone, or forward, to float on the Danube to the angry Euxine sea. The widest extremes of human destiny sometimes trace their initial point of departure

to the same source. The nursery, the school room, the pulpit, the professor's chair are centers of living and palpitating influences as vast as the earth in extent, as enduring as eternity in character.

Farewell! You, as a thousand others I have taught will soon be scattered. We never shall all meet below, but it is my prayer that we may in other spheres and other years renew this fellowship of study in the endless curriculum above.

ADDRESS OF MR. SIZER.

STUDENTS:—One chapter of your life is about terminating; another, and we trust a brighter and broader and richer chapter, is just opening to you. Your life to-day receives a new impulse. During the course of instruction you have been relating yourself anew to all that is past in your experience, and more especially to all that is future in your life. And remember also, that that which you shall be enabled hereafter to do under new lines and new forces will add new responsibilities, and the effects of your work must last forever. One of the blessed and one of the most startling of all the facts of life is that life never dies; that which we accumulate of good while on this trial-ground of life shall live, rise and broaden as time and eternity roll onward. Man is more than he dreams himself to be; henceforth your life, with new responsibilities and new knowledge to help in the performance of those responsibilities, will enable you to do more for yourself and a thousand times more for mankind than you ever dreamed it possible for you to do. Not a day rolls over my head which does not offer opportunity to duplicate my life. Suppose I examine ten persons in a day, and I can augment their being and enhance their power for good and for enjoyment, say ten per cent. I duplicate my life every day. I examine a little boy five years old, and tell his mother how to make the most of him, and for seventy years to come the leaven which I may be permitted thus to cast into that young life shall bear fruit a hundredfold. I have seen more than seventy-three years, and if I can duplicate those seventy-three years every day, how significant is life to a man who has opportunity of this sort. Here we present it, we lay it in the lap of your

own life and ask you to take it up and duplicate the power which you possess here for doing good in others, and thus in the course of time ten thousand lives, renewed and exalted and strengthened by what you may be able to do for them, shall go ringing down the ages the beneficent influence which your work has inspired. John Wesley, once little known, or John Bunyan, very much more obscure, is duplicating his life ten thousandfold every year. He has been in the grave until his form has mingled with its native dust and could not be found. But that part of us which does not die, which works on enlarging its power forever, is that which we culture and which in you we bid God-speed to-day. The epigrammatic poet of England, Pope, said: "The proper study of mankind is man." I can fancy, although the poet and philosopher may have glimpses of the future, which he never has elaborated by cogitation, may be wiser than he knows, and thus forestall the future. This might have been the case with Pope when he said, "The proper study of mankind is man." And yet how much does the world study besides and outside of man. Let those study rocks and earth who will; it is all very well in its way, but it is the foot-stool of God-like manhood and not manhood itself.

Burns, another inspired man, when he said—

"O wad the powers the gifts gie us,
To see ourselves as others see us,
It wad frae mony a blunder free us
And foolish notion,"

was yearning for the very things we are teaching, reaching out blindly for the study of mankind, and for the truths which are coiled up in unrevealed human nature; yet when he said:

"There's a chiel amang ye taking notes,
And faith he'll print 'em,"

it would half seem to us as if he was thinking of that eminent student away over in Germany, Dr. Gall, who was struggling and studying to find out human life and mental philosophy and taking note of them; and when in 1828 full of years he fell in the land of science and learning, French savans stood around the grave of this man, but recently a stranger, who through scientific endeavor

and achievement had endeared himself to all thinkers in that thoughtful land. As they stood beside his open grave an eminent French scholar said: "A great man has fallen to-day, Dr. Gall is no more."

Four years after this, his coadjutor, fellow laborer and friend, Dr. Spurzheim, had reached the United States, and having just finished a course of lectures on the Science of Man in Boston, fell on sleep, and at his funeral, the best, the brightest minds of that Athens of America celebrated his exit to a higher life in the "Old South Church," and Pierrepont the poet said of him in lines with which you are all familiar and which were sung at the funeral:

"Stranger there is bending o'er thee
Many an eye with sorrow wet;
All our stricken hearts deplore thee,
Who that knew thee can forget?
Who forgets what thou hast spoken?
Who thine eye, thy noble frame?
But that golden bowl is broken,
In the greatness of thy fame.

Fittingly the mortal remains of the immortal Spurzheim were laid to rest in that beautiful city of the dead, Mt. Auburn. His was the first human form that found a resting-place in that memorable spot. Then Phrenology was but barely heard of in this country; and from that hour of sadness there sprang, we trust, immortal shoots in this field of investigation. About that time the Fowlers obtained books and commenced to study Phrenology, and soon after began the practice of the subject. Later, George Combe came to this country and commanded attention and endeared all thinkers to him, to his character and to his subject.

These days have passed, but the seeds then sown have continued vitality. We have here to-day a collection, a cabinet of illustration which the world looks elsewhere in vain to find. In order to perpetuate and widen the stream which thus had been started in the investigation of mental science, an Institute of Phrenology was incorporated by the Legislature of the State of New York, and to-day we celebrate its twentieth anniversary. We have sent out classes every year. This class, I may say with pleasure and pride, is the largest we have graduated, and it is doing no injustice to any other class to say that we believe it shows more collective strength of mind and

body (if not so much collective strength of culture outside of Phrenology), than we have been able to exhibit in any previous class.

Brethren, the field is yours. As Mrs. Wells has said, the time is not far distant when some who are younger than we are will have an opportunity to put forty-five or fifty years, as we have done, into this great and noble cause; and may the time be enriched in your life and labor, so that when you shall have finished your career, it may be said of you, as it ought to be said of all the good: "Well done, good and faithful servant, enter thou into the joy of thy Lord."

It remains now for me to present to each of you a diploma, as an evidence of your instruction here; thereby giving the world an assurance of culture to indorse you that we did not have. We were obliged to work it out with fear, and trembling, and weakness, and long suffering, and patience, while you come here and sit and enjoy the fruits of the observation and experience of those who have spent long years, two generations of time, indeed, in delving in this rich mine. As you advance in knowledge and experience in this subject, you can frequently find some human being, rich in all that makes manhood glorious and hopeful, and yet perhaps ignorantly off the track. When you can bring that man back to his true position and make him feel, and in six months come to you and say: "You have saved me, and all I am I owe to you," then you will begin to feel that you have nuggets of gold, rich, plentiful, worth seeking for, but in this field you do not have to seek for opportunities to do good. People come hundreds of miles on purpose to have an examination. One man walked all the way from Canada and back, a distance of 700 miles, because he hadn't money enough to pay for his fare and get an examination, and afterward wrote me that the advantages he had derived from it were richer to him than those he had received from any other given amount of labor, time and care. But you will find out all this matter when the time comes.

We have here students all the way from Dr. Gall's country, Germany. We have one student from England, another of Scottish stock; we have one from the Green Isle; we

have students from Massachusetts and Kansas, from Carolina and Canada, from Texas, Minnesota and Iowa; we have students from the opposite side of the globe, even from New Zealand, and yet there is room. We trust you will become missionaries, not only to teach but agents, to promote the growth of this subject by inducing students of the right sort to come and learn of us while we can teach and have opportunity to give them what we have learned.

I will not, as I sometimes do, make a separate speech to each of the students on delivering the diploma. Remember we are all one family; this hour consummates the union and no hour can come between this time and the last hour, in which we shall not feel for you a brotherly, affectionate interest. Lean on us, ask any counsel we can give you, and we shall esteem you as brothers. Above all, carry yourselves brethren, so that others may gladly claim with you kindred, on account of your high and noble life.

SPEECHES BY STUDENTS.

MR. THACKSTON'S ADDRESS.

WORTHY TEACHERS, CLASSMATES AND FRIENDS: One has well said, "Truth wears no mask; bows at no human shrine; seeks neither place nor applause; she only asks a hearing. Let no man fear corruption from her teachings, though new; neither expect good from error, though long believed," This thought is pre-eminently applicable to Phrenology, especially when it is compared with all other systems of mental philosophy. The claims of every science, must at last be determined by observation and experiment must be submitted to the crucial test of reason and common sense. If its teachings are inconsistent with, or contradictory to observed phenomena, we may safely conclude that its basis is error and falsehood.

Previous to Gall's discoveries mental philosophy was a "mighty maze and all without plan." One metaphysician after another formulated theory as to the solution of the human mind, but they all to a great extent failed, because each one based his theory upon his own consciousness. Now since no two human beings are constituted exactly

alike, since no two have, phrenologically speaking, the same mental organization and consequently the same consciousness, it is evident that if mental philosophy be based upon individual consciousness, we would have as many different systems as there are separate individuals.

Phrenology, however, furnishes the only key that will unlock the laboratory of human nature. Its doctrines are founded upon the physiology of the brain, the acknowledged organ of the mind, and upon the obvious correspondence between the internal structure of the brain and the external developments of the cranium. Phrenology, thus, obviates the difficulties and solves the mysteries of mind, and exposes the character to the gaze of every intelligent and critical observer. After having mastered its fundamental principles, the student, in order to test the correctness of its teachings, has but to open his eyes and study the men and women that he meets from day to day.

Phrenology, then not only claims to be the most rational, the most practical and the most scientific system of mental philosophy ever yet offered to the world, but it also opens up a grand and glorious field of thought, and renders possible the elevation as well as the amelioration of mankind. Reformer after reformer has given birth to his ideal of the perfection of humanity, but most of them have hitherto failed to take cognizance of the great truth, that if we would make man great and good we must surround him, even in his ante-natal life, with those conditions which are absolutely essential to the end desired. Genius and goodness are not the products of mere chance; they can be produced only where the conditions are favorable. Phrenology teaches us how to cease producing idiots, imbeciles and criminals, and to supply their place with a more fortunate race of human beings.

Fellow students, it should be our highest endeavor to reverse the present order of things. We should strive to make health and not disease contagious, to make great men and good women the universal rule rather than the exception, to make joy and happiness rather than misery and discontent the common lot of mortals. If we do our duty in disseminating the truths we have learned at the American Institute of Phrenology, the world will be made happier, wiser and better.

ADDRESS OF MISS MORAN.

DEAR TEACHERS AND CLASSMATES, I wish to refer very briefly to woman's relation to Phrenology in the past, present and future, and further to point out the fact not generally known, that the successful introduction and permanence of Phrenology in America is in no small degree due to the untiring efforts of one woman, Charlotte Fowler Wells. Although Gall and Spurzheim were the first to direct the attention of great thinkers to this new mental philosophy, and the visit of Spurzheim to America awakened our countrymen to its importance; though Combe, Caldwell and others have set forth and urged upon the attention of the world the philosophy, importance and utility of Phrenology, yet the efforts of Mrs. Wells in behalf of Phrenology in America in conjunction with her brothers and her husband, have done much to give it a home and a permanence.

The PHRENOLOGICAL JOURNAL was brought into existence and sustained, though it was unremunerative, in the darkest days of its history, and when her brothers were weary of the burden of its maintenance her hopeful assistance inspired them to hold on and victory was the reward. She was the first to teach a Phrenological class in America as a means of promulgating the science, and as an outgrowth of this prophetic effort on her part has grown the American Institute of Phrenology, the fame of which is now world wide and whose influence for good in the cause of truth can not be measured by time. The cabinet of skulls, busts and casts which she recently donated to the Institute, and which daily attracts so much attention and curiosity, owes in no small measure its existence to her energy and untiring industry and faith in the future.

May she live to realize the noble ideal of her highest hopes, namely, the permanent establishment and endowment of the Museum of Phrenology.

If one woman has signally aided in the accomplishment of so much in the past, and is still doing much for the present and future success of Phrenology, surely other women should be ready and willing to do their part in disseminating those phrenological and physiological truths which have done so much to make the world purer and better.

Law, medicine and the other professions are now crowded, and except in medicine there seems to be no room in them for women, but in Phrenology, a profession for which women seems specially adapted, there is a wide field in which she can wield influence by her teachings and advice that will make itself felt in the future education of the race, for women may be said to hold its destiny in her hands.

In the teachings and practice of this beautiful science I propose to devote my life, having for my ideal the "Mother of Phrenology," and like her I shall ever be interested in all those engaged in a similar pursuit.

To you Prof. Sizer I feel under many obligations for the special kindness and sympathy you have shown me throughout the entire course: I deem it a privilege and honor to sit at the feet and learn wisdom of the Gamaliel of Phrenology, whose place if vacated I fear can never again be so successfully filled.

May you, Mrs. Wells, Dr. Drayton and the other teachers of the Institute long live to publish to the world the great truths of Phrenology, Physiology, etc., and when at last you pass from our midst many will rise and call you blessed. To my classmates, I wish to say, that neither time, place nor condition shall ever blot from my memory the pleasant associations of the session now past, and I take this opportunity to thank each of you for that gentlemanly courtesy which you have so unhesitatingly shown to me, and whom you have with playful kindness been pleased to call "The Daughter of the Regiment."

May you all reach the goal of your highest ambition, and prove yourself worthy of the noble cause in which you have enlisted, and with many kind wishes, but with regret dear teachers and classmates, I bid you "Good-bye."

ADDRESS OF EDWARD A. CRAY.

RESPECTED TEACHERS, FELLOW-STUDENTS AND FRIENDS:—It is about six years since I heard of the science which we came here to study. My Sunday-school teacher then gave me some old numbers of the PHRENOLOGICAL JOURNAL. Through those I heard of the American Institute of Phrenology, and made

up my mind to attend at the first opportunity.

This science which enables us to read our fellow men, which reveals to us our own defects, and points out the way toward perfection, is the science of sciences. Other sciences are very useful to mankind; it takes mind to study and understand them, but by Phrenology we study mind itself.

Men of all ages have been arguing as to what mind is, whether it acts through a material or immaterial agency. Metaphysicians differ in regard to the number and nature of the faculties; each reflecting on his own internal consciousness, and thus taking his own mind as a standard for all.

But Phrenology teaches us that mind acts through a material organization, and that organization the brain; through which, not intellect only, but all of our affections, motions, sentiments and passions are manifested. Furthermore, it teaches us that the several faculties of the mind are manifested through different parts of the brain; and shows us how to explain the great diversity of character by observing the variations in cerebral development.

The study of mind is not a little thing; it grows larger as we approach it until we can hardly comprehend what we have undertaken. When we study mind, we have to study man, and we cannot study man without inquiring into both body and mind. By studying those sciences which relate to the mental and physical nature of man, Phrenology, Physiognomy, Psychology, Anatomy and Physiology, or in one word, Anthropology, we can make use of the knowledge thus gained by benefiting ourselves and our fellowmen.

I intend to make this a life study, and a life work, and I trust that we all will feel that we can do more good in the world, and that the world will be made better by our having adopted this work.

ADDRESS OF MR. DORNBRACH.

Wherever upon our globe man's enterprise and intelligence have led him, there has he found life in its varied organic forms in measureless profusion; in the depths and on the elevations of the earth; in the air and in the waters. The air teems with it in forms invisible to the naked eye. Armies are carried along with the current of the wind and thus are the cause of our wide and sweeping epidemics. Animal life, it is asserted on recent

observation, predominates amid the depth of the ocean, while vegetable life, so dependent on the periodic action of the sun's rays most prevails on the land. The mass of vegetation on the earth far exceeds that of animal organisms, according to Humboldt—no region of the earth has yet been reached by men that does not abound in living beings.

The general diffusion of the life of infusoria must be truly annoying to those whose thoughts have never been directed to this subject. Ehrenborg, the Prussian naturalist, who has studied infusoria in their curious habits and organizations, says that one individual is capable of increasing in four days to a hundred and seventy billions. He estimates that five hundred millions of infusoria may sometimes exist in a single drop of water. Such is the universal distribution of life.

Let us now consider the most superior being—Mankind. Human life, it need not be told, has its ills, and in no small measure it has much to endure as well as much to enjoy. Some of our sufferings seem inevitable, but the far larger proportion proceed from our own follies and vices. Man is fitted for high and noble enjoyments; his superior organization and consequently more delicate sensibilities, his close and pleasurable relations with external nature, joined to his numerous moral and social connections and responsibilities, give him an infinite advantage over all other animals, opening rich, boundless fields of enjoyment of the beautiful in nature and art.

His social feelings and moral sentiments are the source of his domestic ties, and all his pleasant and friendly relations with his fellow-man, and then his great intellect enables him to advance in knowledge, to open new fields of science, to discover new truths, and to experience the pure and delightful satisfaction that his mind is continually expanding, and the proud consciousness that he is moving to a higher and nobler destiny.

Such enviable privileges as belong peculiarly to man are not without attending evils, for his more complete organization, more delicate nervous susceptibility, and more numerous and intricate relations with external things expose him to a greater amount of moral and physical suffering than belongs to the lower animals. Still there is ample compensation for such disadvantages in the enjoyment pertaining to the higher prerogatives of man's nature. Could we trace out the scheme of Providence it would be found a plan harmonizing with real benevolence.

There exists a class of narrow, timid, conservative minds ever bounded in their views and efforts by what they conceive to be the barriers of nature's laws, the impassible limits of human understanding, like children who imagine the horizon that bounds their vision forms also the impenetrable boundary of earth; at every turn they see the impossible in nature the goal of human effort; it is their familiar saying that the author of our creation never designed we should do or know this and that; that it is wicked to pry into the arcana of nature's holy temple. With none but such minds life would be unprogressive, stagnant as the Dead Sea.

In our mental advancement through the already well known, or through newly discovered principles or elements in nature; we ought to be and are continually working out new and astonishing results tending to health, enjoyment, and the elevation and perfection of our species. Therefore, what is our duty? Is it not to understand our fellow-man and above all our own selves? How is this to be done? Providence has given us the means. Men have studied and at last have found the way to enter into mystery, or what at least seemed to be mystery until only a short time ago. They have shown us the way and cleared the fields. Very much is to be done yet, before we can call this God-given science of Phrenology complete and perfect, but I am sure the day will come. So my dear classmates, let us put our whole soul into life, and work with all our might toward the point of perfection for the benefit of ourselves and our fellow-man. "Whatsoever ye would that men should do to you, do you even so to them." But I say nay! more! Sacrifice yourself for your neighbors, and your life will be like your soul, immortal. A man who has such a life knows no failure.

ADDRESS OF H. S. BARTHOLOMEW.

Teachers and Classmates: The debt which we owe to Phrenology I fear cannot be fully appreciated; I know it cannot be over estimated. We have enjoyed privileges here of which no one else, except those who have been here before us know the value. We have been permitted to study this beautiful science under the direction of those who have spent their lives in the dissemination of its truths. The time which I have spent here has been profitable to me in many ways. This course of instruction has opened to me new fields of study and I hope of usefulness.

Phrenology teaches us the true method of studying human nature; it gives us better and higher ideas of life; it teaches us that there is for every person a sphere in which he can accomplish some good; it enables us to study ourselves, and tells us how to use our faculties that their exercise will increase our own power and benefit those with whom we associate.

But in proportion as we have increased our knowledge we have also increased our responsibilities. Henceforth it will be our duty to teach these truths to others, that, perchance, they may be led up to a higher appreciation of the grandeur of human life.

Whether we engage in Phrenology as a profession or labor in some other field, we shall find many opportunities for doing good. If we labor zealously for the good of humanity, we shall surely accomplish something. Then let us go forth with the determination to do our duty to ourselves, to our fellow creatures, and to God.

"To the Sovereign King of kings,
Naught is little, naught is great,
Heedful of an insect's chirp,
Careless of a monarch's hate.

We who spell but word by word,
Cannot read the mystery,

But the long, last pages lie
Open to the Deity.

That alone is good for each,
Which the good of all must be,
That divinely best for time,
Which is best eternally."]

ADDRESS OF C. L. HASKELL.

Ladies, Gentlemen and Fellow Students: To some extent "the world is what we make it." We go forth from here to influence the success and happiness of ourselves and others. We can get nothing out of life or the world that we do not put into it; therefore if we would enjoy life and see beauty and happiness around us, we must give out sunshine and beauty from our own lives. It will not only be reflected back upon ourselves, but it will kindle to a glow many a fading face. Kind thoughts, kind words and kind acts never die, and they bring their own reward.

No one has it more within his power to improve and perfect himself and his fellow men physically, socially, intellectually, morally and spiritually, than the true and able Phrenologist. It is my own desire to do good wherever, whenever and to whomsoever I can.

ADDRESS BY DR. F. W. OLIVER.

Worthy Instructors and Dear Classmates and Friends: For the past fifteen years I have been deeply interested in human science. There is no standard work on the subject of Phrenology that has escaped my notice and I have disseminated its grand truths as best I could from self-culture and diligent research, and now having taken a course of lectures at this Institute, I feel doubly qualified to portray to the people the benefits of Phrenology in a manner that shall be at once acceptable and convincing. In all my professional career in the lecture field in years ago, I have found that the masses are deeply interested in our noble science, and I thank God there is such an institution as this in our land. Long may its eminent teachers be spared to teach others who shall come here to seek after the living truth, the true mental philosophy. How great the responsibility that rests upon each one of us as we go out into the field to benefit mankind? Let us be zealous in the good work. Mental philosophy, especially that unfolded by Phrenology, will give us a broader view of life, keener insight into human character and capacity, and charity for the weak and erring.

The brain is the organ of the mind. This is an established fact. The greatest anatomists admit it, and the best minds in Europe and America are in accord with the phrenological classifications of the faculties. Every act of our lives emanates from the brain; all of our actions proceed from it.

The immortal Dr. Gall, the founder of Phrenology said of it, "This is truth, though at enmity with the philosophy of ages" and how manfully he defended his system of mental philosophy. Let us not be afraid to give hospitality to new ideas. Let us push our investigations and follow the truth wherever it may lead us. Long after our worthy

instructors have passed away some of us will be advocating the science of man and may we be an honor to the profession. Chapin says, "Man gains wider dominion by his intellect than by his right arm. The mustard seed of thought is a pregnant treasury of vast results. Like the germ in the Egyptian tombs its vitality never perishes and its fruit will spring up after it has been buried for long ages."

Fellow-students, the dissection and demonstration of the human brain by Dr. Sizer which we witnessed yesterday afternoon, was a spectacle which none of us will ever forget. This act closed our lessons; how fitting it was too, and with what clearness did the skillful operator explain its various parts. Surely throughout the course of lectures delivered we have been more than doubly repaid for our coming.

This is a topic of which my heart is full, and I can not relinquish it without once more impressing upon you the nobility and usefulness of our chosen profession. I see as clearly as I see the sun at noonday, that a glorious future is in store for phrenological science. We are doing for ourselves and society a work that can never pass away. We are exerting an influence that is destined to do in the future what it has so nobly done in the past, rescuing the fallen and bringing them up to a new and better life.

The mind, the brain, what themes for contemplation; and this is our labor, our life work. I can conceive of no higher field a human being could enter. And let us zealously defend the truth and faint not in the work which lies before us. Success is the verdict of invincible determination, and I bid you God speed in your journey through life.

ADDRESS OF MR. MARTIN.

Respected Teachers, Classmates and Friends:—When I was a boy, a Phrenologist gave a course of lectures near my home. The idea of going about and teaching people how to live right seemed a beautiful one to me. At once I fell in love with the science and concluded to study it if possible, and become a lecturer on Phrenology and Health.

Never did I think that it was the science of all sciences, until I began to see how it reveals the truth and nothing but the truth when rightly studied. It unlocks Bible truths and shows the harmony between the Bible and God's natural laws which extend to the spiritual world.

As the brain is the organ of the mind containing many sub-divisions, each of which has a primary function different from the other, and as no two heads are shaped exactly alike, we can not think nor believe alike; therefore different opinions exist which prompt investigation. True science and true religion must agree, and he who knocks at the door of truth will grow at once in grace and knowledge. For my part I can not feel like studying Phrenology without studying the Bible with it. I believe that the Bible is written to accord with natural laws. God does not deal with His people in a hap-hazard way; this is no world of chance; everything has its cause and

produces certain effects. We may not understand all the mysteries connected with the Bible, but those which thus far have been revealed accord with natural laws, we may safely infer that those which are not understood also accord with natural laws. His laws are those of development, and this is what the inspired book teaches us, and so does Phrenology. All the commandments given and correctly understood harmonize with these laws of development. How important then it is that we understand not only the laws pertaining to the mind but also to the body; to know how to live healthfully and give advice as to how suffering humanity may grow into health, and how children shall live so as to grow and develop into beautiful, noble and vigorous men and women, and not remain sickly and dwarfed, like trees growing on poor soil, as thousands do who ought to be well developed and happy.

I hope we shall so live as to bear fruit becoming to our profession as Phrenologists.

ADDRESS OF ELMER REAM.

Respected Teachers, Classmates and Friends:—After having turned my attention to this subject, it gives me pleasure to look back and realize that the time spent on this subject has not been in vain. It also makes me feel happy to know that I have been taught by worthy instructors, and now, after this course, placed on solid footing with proper directions to proceed with life's great work of making the human race better, which is the noble purpose of this science.

We are in a broad field, and the knowledge yet to be gained can be attained only by judicious application of our minds to the subject to which we have been giving our attention.

We look into sciences and find many that conduce to man's happiness, but the science of Phrenology administers to the happiness of both body and soul. It teaches men how to live, and it is how we live that begets our happiness or miseries. Violate nature's laws and suffer; obey them and be happy is verified in thousands of cases, yet the world seems to be slow to learn that obedience to nature's great law is sure to bring the coveted pleasures.

The world hungers for truth, and Phrenology satisfies this hunger, if but unprejudiced investigation be made. Show us a man or woman who has honestly and intelligently investigated this subject, and we will show you a man or woman converted to its principles.

The light of Phrenology can not be puffed out by superstition, and fuel that has been added this year will only intensify the flames and show the world that it does not carry its light "under a bushel."

It teaches truth and promulgates facts of scientific investigation, and if we make its principles known wherever we go, we will verify the language of the poet, that—

"Life is real, life is earnest,
And the grave is not its goal;
Dust thou art, to dust returneth,
Was not spoken of the soul."

ADDRESS OF JOHN P. WILD.

Respected Teachers, Classmates and Friends :— It is comparatively easy to stand before an audience and repeat the lines of another, but when one has to clothe his own thoughts in his own language it is quite difficult. But as apologies are not the order of the day I shall refrain from making any.

Our esteemed Professor in his opening remarks said that the course we were about to take would change the whole course of our lives, and in speaking for myself, that has been the result, I may say both mentally and physically. We have learned how to live and know ourselves better than we ever did before.

I feel proud to be a member of the class of 1885. Why? For several reasons; they are a set of moral men, and I don't believe one of the class has indulged in anything of an alcoholic nature, and I think it would be quite difficult for thirty men to come together from all parts of the Union and not find one or more addicted to its use. I have not heard three men make use of any profanity, but I think a great deal of that is due to our sister, Miss Moran; her influence has been beneficial, and I think, brethren, that we should tender her a vote of thanks for her presence. The influence she has had on, or I should say over us, has been very much like that which Parthenia had over Inoimar. Phrenologically speaking, size is a measure of power, but in this case, our Professor will pardon me if I say that, size is backed up by quality.

In conclusion I wish to say, and I will say it as advice, it is a well-known fact that professional people as a class are jealous of the success of their brethren, but with us let it be the exception to the rule, and if in years to come we should meet in the field and should feel that "green-eyed monster" that "doth make the meat it feeds on" has taken possession of us, let us say, "Get thee behind me Satan," and if we can't say a good word let us be silent; and hoping your efforts may be crowned with success I will bid you all good-bye.

ADDRESS OF J. M. KIMMONS.

The student of human science who teaches the laws of life and obeys those laws written in his own being and who reads in natural language the character of others need not envy the men of gold and power and renown whose eyes are closed to truth by prejudice and bigotry.

The mind of the practical Phrenologist often becomes isolated from the common channels of human thought. He lives in a different sphere of mental appreciation. As he mingles in the crowd of a thousand, the infinite diversity of human character, like an ever varying panorama passes before him. He observes the sources of hidden feeling, restrained action and conduct. The book of human nature is open to him and he simply reads.

This dry skull before me, when viewed by the eye of Philosophy, becomes an object of intense interest, because we know it was once the receptacle of a living brain, throbbing with life in which a human mind lived, and acted, and loved,

and thought. Well might the gifted bard as he looked upon the exhumed skull of the Greek Hero exclaim:

"Look on its broken arch, its ruined wall,
Its chambers desolate and portals foul.
Yes! this was once Ambition's airy hall,
The dome of thought, the palace of the soul."

But the Phrenologist sees something more than the "dome, the broken arch and ruined wall," and though a hundred years deserted by the soul that illumined it, he reads in this old habitation the story of its character. Here engraven on its walls are the work of thought, memory and reflection. Here is the impress of courage, anxiety and fear. We see the source of suspicion, hope and ambition. We touch the dwelling place of aspiration and appetite, of tender sympathy and strong passion. But this skull differs in form from every other in existence, and every other from it. So did its character, and so does all character from imbecile to philosopher, from criminal to divine, we trace the infinite gradation.

"Born by one law through all nature the same,
What made them different and who is to blame?"

Ah that is the question; what made them different? Who is to blame and what is the remedy? Facts on the largest scale answer "stubborn heredity." Perverted generation has corrupted the stream of human life for five thousand years. Where moral sentiment and intellect should sit supreme, blind instinct and animalism have usurped the throne, and weakness and disease, vice and deformity are making their impress on the moral physical and intellectual vigor of the race.

Here, then, Phrenologists, the gate opens wide, and invites all science, and effort, and talent and philanthropy to enter the field. A bitter fountain cannot send forth pure water; if we want to cleanse the stream we must purify the fountain head. If the moral reformers would improve the offspring, let them first improve parents. If they would reform future generations, let them do so through the medium of the present. If they would place the future offspring of the world on the highest place of life, let them teach mankind to study and obey those generative laws the ignoring of which has rendered philanthropy in reformatory effort the necessity of the age.

ADDRESS OF ORRIN DOOLITTLE.

Beloved Instructors and Fellow Students :—"Wisdom is the principal thing, therefore get wisdom," says Solomon. If this be true it must be emphatically so in regard to the wisdom that comprehends self-knowledge.

We have increased our knowledge, our ability, our responsibility. "Freely have we received," freely let us give. May our minds be not like a reservoir but like an ever flowing fountain. The right use of knowledge augments the original capital in much the same manner as compound interest does, except that the compounding is not confined to stated intervals. The use of knowledge not only increases it, but if rightly used it facilitates action in the faculties that use it. Then let us consecrate this knowledge by gladly

giving the same knowledge to those who know not yet its value. Pope says:

"All are but parts of one stupendous whole,
Whose body Nature is and God the soul."

Each and all of these "parts," everything animate or inanimate is an instrument (directly or indirectly) to the development of the human mind—the diadem of Nature, the image of God. When each faculty shall be the instrument of the co-worker with all the adjoining ones (for this constitutes the true mind, and the mind makes the man); when every man shall be his neighbor's keeper (instrument of development and salvation), then, and not till then, will the highest instrumentality of the human mind be realized and the work of Phrenology consummated.

We don't expect to be mortal witnesses of this grand triumph, but we may set forces at work that will continue with augmented potency to hasten it; for the force (effect) of a deed never dies.

With gratitude for the many kindnesses received, and hoping to hear of your continued success, I bid you farewell and good-bye.

ADDRESS OF F. O. ROBINSON.

Respected Teachers and Classmates: We have completed our course and reached the eve of our departure. The question with each of us is, "Am I better prepared to fight life's battles, than when I commenced this course?" It seems to me that each of us can say, "I am better prepared." It has been good for me to be here; I have received truths that I could ill afford to do without. I feel that I owe more to mankind than I did six weeks ago. If Phrenology is what we believe it to be, and we profess to understand it, "let us walk worthy of the vocation wherewith we are called," and let our daily walk really be better than heretofore. "Where much is given, much is required." If there be any one thing that speaks more in favor of Phrenology to me than another, it is the character of the Class of 1885. Where will you find another class of this size in which there has been as much harmony, brotherly feeling and confidence in one another? Where a class that comes as near fulfilling the great commandment, "Be temperate in all things?" What has brought us together? What has led most of us to make sacrifices such as we are not accustomed to make? What has brought some of us across the sea? All these questions may be answered with one word, "Phrenology." May God help us all to make a proper use of it.

ADDRESS OF MR. HOWARD.

Professors and Fellow-Students: Personally there is a shade of sadness resting upon my mind this afternoon as I think, at last the precious hours we have spent together have come to a close. It was wonderful how soon a true *esprit de corps* ripened among us, "One touch of Nature makes the whole world kin," and as we have all suffered together from the triplet—ignorance, folly and pride, so we have been knit together by a common sympathy, American, English, Irish, Ger-

man; our hearts beat as one for the honor of our great cause, and for it I think we will fight back to back; we will henceforward feel that any disgrace merited or unmerited falling upon one of us falls on all, and tarnishes the escutcheon of our cause, and we will seek so to live and so to work as first and always first, to exalt Phrenology, assist its true professors and then we owe a duty to ourselves.

Phrenology has been as precious to me as the North star was to the fugitive slave. It first helped me on to a sure, firm, scientific basis of religious faith.

"The steps of faith
Fall on the seeming void, and find
The rock beneath."

Whatever strength, or permanent respectability, or public recognition, Phrenology now has, is centered in and manifested through this Institute, and every individual who wishes well of this science must and will support this Institute. Would that there were men of sympathies sufficiently broad, and purses sufficiently deep to aid the only science which directs its energies to the exposition and development of the mind.

The past six weeks has added several pounds to my "corporeal ponderosity" and my memory has been overtaxed with information, and my note book—well, I would not part with it for the Institute fee.

I have said that as Phrenologists we would fight back to back; well, we are engaged in perpetual warfare in this cause, perhaps the figure is home-bred, as the annals of British story are crowded with tales of the achievements of small bodies of men.

Eighteen centuries ago a small party of men began to preach the new doctrines of Christianity. They were without worldly influence or wealth; they went forth to confront a world steeped in superstition and ignorance. The Galilean has conquered; the despised cross surmounts the proud eagle of Rome. These victories were not however obtained by an appeal to reason alone. Reason is only one cog in the wheel of the human mind, which being in the "Image of God," a reflection of the Deity, is the Celestial, Imperial standard for truth in this world, and consequently when you discover a man of the highest organic quality, of Temperament perfectly harmonious, perfect mentally and with a fine poise and balance of the whole, sit at his feet and learn. One such man, (considering his human nature apart), has lived and taught, and blessed is he who would learn of Him, until the time shall come when the human race as a whole has developed to that standard, and the time may not be so far distant as the despondent may think. In the mean time, let us exalt the only demonstrable science which can further for humanity this glorious consummation.

ADDRESS OF HOWELL B. PARKER.

I have spent since November, 1873, for my Phrenological library, cabinet and for three full courses at this Institute, each of which seemed to be the best and most profitable to me, over \$2000. I have

also thoroughly tested Phrenology and its application in the school-room and in the lecture field. Hence, I know what I am talking about.

Phrenology has increased my income three-fold, and my influence at least ten-fold. Phrenology has turned me from a skeptic to an earnest Christian, saved my life, properly directed my mind, and given me power to do good. It has enabled me to see, appreciate and develop real worth in many boys and girls. I would not exchange the influence of Phrenology and of its noble and true teachers over my character for all the wealth and power of this world; for one character reformed will outlast all the power and wealth of earth, and shine and rejoice with God throughout eternity.

When crossing the Sahara, the thirsty caravan sends runners ahead to search for water; finally one shouts Water! the next catches and repeats the joyful news, and thus the caravan is saved. They hurry to the oasis, drink, rest, take in a full supply and go on their way rejoicing. The best thinkers of the Nations for centuries had travelled over the desert of Metaphysics, and as the burning Sahara marks the path of caravans by the bleaching skeletons of man and beast who have fallen by the way, even so disappointment, blasted hope and wasted endeavor gave evidence of a false and misleading mental philosophy. Dr. Gall, eager to master the problem of science, abandoned metaphysical speculation, observed Nature, accepted her facts and teachings and after many years of patient study and observation he found his oasis and shouted Truth! "This is truth, though at enmity with the philosophy of ages." Spurzheim, the Combes, Ellis, Mackenzie, Otto, Caldwell, and later the Fowlers, Wells, Sizer and many others as they heard the call, were eager for the new and easy way to comprehend the marvel and mystery of mental science which hitherto had baffled the able thinkers of all previous time.

Phrenology, thus based in nature, will yet spread all over the world and reveal to all the infinite capacities for usefulness and enjoyment which God has so wondrously wrought into the very texture of every body, mind and soul.

I have drank thrice at this fountain of Truth, I have been refreshed, strengthened and inspired one thousand times by these noble teachers. I never expect to abandon this double track route to truth and usefulness. Mrs. Wells and Professor Sizer are living specimens to show what great things pure motives, good sense and faith in Truth and in God can do.

Several times during the last fifty-one years Mrs. Wells has insisted that this Phrenological office should be kept open, when her disheartened brothers were ready to close it and depend on the lecture field. Professor Sizer in forty-six years service has made his name a household word, and his influence belts the globe. Many praise God for the good which these two have done for them.

My dear classmates, be true to yourselves, stand your ground, proclaim these grand truths which will burst the shackles of evil habits and wrong systems of philosophy from every soul and set them free to travel over well-watered and fertile fields to their final reward.

A mob in Boston called for Wendell Phillips. He went to his invalid wife, told her good-bye, and bent down and kissed her, as he thought probably for the last time. As he started, she put her thin hand on his strong, brave and manly arm and said "Wendell, for God's sake don't Shilly-Shally." The world knows that Wendell Phillips obeyed his wife on that important occasion.

Mrs. Wells has looked to us—young, strong and capable, and said "Be true, do good, be faithful." Yes, to-day she trusts and prays that we will aid with voice, and pen, and money, [to establish a Phrenological Institute which will be a blessing to the world till time ceases.

ADDRESS OF C. E. CADY.

Professors and Students of the American Institute of Phrenology: By your order it becomes my pleasing duty to say a last official word to the Class of 1885. Pleasing, because it is always an agreeable task to review work accomplished and duty done, but it carries a tinge of sadness in that it puts a period and brings a close to one of the pleasantest and most profitable courses of Instruction it has ever been our privilege to enjoy.

The origin and destiny of man is the problem of the ages, and he who studies man through the brain comes nearer the solution of this question than he who approaches it through any other channel. How truly said the Psalmist that "Man is fearfully and wonderfully made." Anthropology is the science of that making, than which there is no greater to occupy men's thoughts. What is science but organized knowledge!

We believe that the mind is expressed through the brain, that the brain is the expression of man, that the brain is man. We study the phenomena of this expression, organize the collated facts and call the resulting science Phrenology. If the course of study we have pursued is right, then the truth of eternity is ours. Under the liberal teachings of Phrenology, the delineator of character finds no time to waste in dispute or cavil; he does not need even to parry the thrusts of doubt. He says "Here is an open door, let us enter and explore the chambers of the soul, to you hidden, but to him who approaches in the spirit of intelligent reverence and faith, as plain as the sun at mid-day." The barricades are removed, and years of systematic inquiry have shown that the sentient being we call Man, this living, moving acting being, capable of doing, and daring, and suffering, of loving, fearing, hating, accomplishing is not an unsolvable mystery. His governing motives are found within him, and this leads to that grander fact that these motives may be modified, guided, controlled so as to produce a higher order of being—a nobler man.

Nature has endowed man with grand characteristics of physique and soul, and these I apprehend are the talents for which he will be called to account. He who hid his talent in a napkin may have done so ignorantly, but we have no warrant for the belief that he will, therefore, be excused for the loss of customary usury. What a lesson of responsibility does this teach to those who have

come either by chance or by deliberate intent, upon the great truths to which we have listened during our term here. What a demand is made upon us for the discipline of those higher powers in every capacity and faculty with which we are endowed.

Life develops in strata or phases, and according to the theory of evolution, the face, the brain, the head of the human race have changed during that development. Phrenology keeps pace with this unfoldment, and Chronology records the fact. In view of recent progress in mental science, is it presumptuous to think that we need not close our investigations at the door of what we call Death? Do not intuition and speculation—and by speculation I mean something more than mere day-dreams—do not these point to a possibility, to a probability of something more than we see in the walks of every-day life? To-day we are in the Alphabet of the wonderful Science of Man—the interpretation of character. I believe the door is already ajar which opens to greater truths than those yet discovered, to grander possibilities than any yet reached, and who shall tell how many promptings are received by him who reverently listens to voices not heard by the untrained, the unsympathetic, the unheeding?

May it not be your privilege, my associates, to bring still greater light and add much of what is wanting to complete Psychological truth, so much advanced and I may almost say established, by our great forerunners—Gall and Spurzheim? Will not the added light of these later days of the nineteenth century with its intensity of thought, with its quickened intuitions, with its better opportunities for research with its increased possibilities for arriving at truth, aid greatly in bringing the desired result? Let us confidently expect such may be a glorious consummation. Seeds have been planted with tender care, and it remains with us to nourish them into blossom and that fruitage which shall be a boon and a blessing to mankind.

I feel like kneeling alone at this altar from which we have received so many rich gifts hallowed by the presence of faithful ones, in whom lies the virtue of higher attainments, while the sanctity of knowledge holds its golden mirror before our souls and invitingly allures us on to loftier realizations. Within this scope we have learned to honor and reverence our preceptors who have labored for our sake, always active, always cheerful, always the friend of the learner. You, our beloved instructors carry with you our respect and esteem, and while there is no occasion for comparisons, I feel that I am joined by my classmates in adding a word to you, our Senior Professor, you who have been more with us, hence more intimately connected with us than your associates. Speech is sometimes a sad offering to the spirit that has affrighted itself with the experiences of a long life, giving as it does the rich fruitage of that life to younger minds and younger hearts; hence I may not attempt to give voice to our gratitude but let that sentiment remain with each as something sacred to himself. Be sure, sir, that you will ever be borne in our hearts with grateful remembrance.

My associates, what should be the last word I address to you on this occasion? It would be in order to say "Good-bye," but the conventional phrase is full of sadness. It savors of a final separation, but we should not be separated in spirit, even though leagues of distance separate us in the body. Why shall we not retain that unity of feeling which brought us and bound us here, working as we shall do in a common cause and for a common purpose? Let us not indulge in any sentimental sorrow at parting; we came here for the purpose of separating; our dispersion is one of the objects of our assembling. We came to affright our minds, and I trust our hearts with those precious words of wisdom to which it has been our pleasure to listen. If our opportunities have been improved we can go with joy at the thought that our purpose is accomplished. Let us go forth, then, with cheerful courage, taking with us those high principles of right, of noble character and of true living which have been inculcated by our respected instructors, always keeping fresh in memory the days spent here in the presence of these faithful laborers in our behalf.

And now, as we disperse, let us say no mournful adieu, but let us rather go with hope and joy, bidding each other, as I now do you, good evening!

ADDRESS OF REV. ARTHUR C. DILL OF THE CLASS OF 1883.

He spoke very rapidly, too much so for a *verbatim* report. Addressing himself to the graduating class, he said:

"It gives me pleasure to welcome you into this field of science. Though our class was the best class that ever graduated from this Institution, I humbly acknowledge that yours is the *better*."

He then referred to the struggles to be met with by the class in their contact with the ignorant and the prejudiced—the only opposers of this most important study, the study of man, next to, and secondary only to the study of God. History, he prophesied, would one day acknowledge the work and the names of the expounders of this science, and gave his tribute of respect and of gratitude to the members of the Faculty. At this point he dwelt at length upon the great danger of only a little knowledge. He acknowledged that when he entered the Institute, coming as he did from the college halls of metaphysics (Yale) that he frankly confessed to Professor Sizer before entering that he had not a particle of faith in the philosophy of this Institute, but only in its practical outcome. Whatever their philosophy, he knew that somehow they secured a grip upon every man that came into their presence; *that knowledge* he wanted in order to reach men and to win them to Christ. The very first lecture convinced him that ignorance of this science, *as it is now taught*, is the only strength of the opposition; that the conflict is only one of ignorance; each ignorant of the deeper truths of the other. "Metaphysics, in substance," he said, "can have no conflict with physics. In this Institute we study physics—physics in its higher line of brain development, of temperament, of nerve power, and of quality as

well as of quality. There can be no reasonable conflict between the two. I desire to shake hands with each and every one of you in promising to uphold the cause that we labor for, to uphold the names and the honor of those to whom we should this day be grateful. We are in the conflict of life and we are trying to lead others on in this conflict, to victory. The struggles of life are something more than a question of physical strength, nerve and brain power." The speaker then referred to that famous painting "The Game of Chess," a "Game for Life." Brain against brain. A sharp shrewd intellect against a keen, wise opponent. But that is not all. It is an uneven struggle." He then vividly pictured out the hideous demon in the background—the hidden force for evil. A superhuman Devil. A Crucified Christ. His highest aspiration, he said, was to say with Paul, For to me to live is Christ and to die is gain."

"I can most certainly congratulate you, members of the class, on the privileges of your six weeks course."

RESOLUTIONS.

- Having taken a full course of instruction in the American Institute of Phrenology, the Class of 1885 respectfully submit the following resolutions :
- 1. *Resolved:* That we heartily commend the American Institute of Phrenology to all ; especially to those who desire to obtain a correct, thorough, and scientific knowledge of the principles and applications of Phrenology.
 - 2. *Resolved :* That we earnestly recommend that a wider publicity be given to the objects, aims and achievement of this Institute so that many more may here gain that knowledge, which is most valuable to all, viz.: Self-knowledge and a Scientific and just estimate of the capacity and character of others ; and also the best way to develop and properly use all the good tendencies, and to restrain, direct and finally overcome the evil tendencies of our nature.
 - 3. *Resolved :* That, we return our most sincere thanks to you, our learned, practical and pre-eminently kind teachers for your valuable instruction, and for the great interest which you have mani-

festes in our personal welfare, assuring you, as we do, that our stay here has been most pleasant and profitable. We will endeavor to be worthy teachers of the great truths which you have so vividly and powerfully impressed upon our minds.

Howell B. Parker, Georgia,
H. F. A. Darnbrach, Valpariso, Chili, S. A.,
Robert J. Irwin, Canada,
Committee on Resolutions.

- William E. Grumman, Connecticut.
Jason B. McCoy, Ohio.
Rev. Samuel J. Greear, Illinois.
Edgar A. Darling, New York.
T. B. Thackston, South Carolina.
Paul Howard, England.
Orrin Doolittel, New York.
J. C. Giles, Texas.
Henry S. Bartholomew, Indiana.
Elmer Ream, Indiana.
Edward A. Cray, Rhode Island.
Edgar E. Davis, Iowa.
Frank O. Robinson, Tennessee.
Joseph Diehm, Kansas.
John P. Wild, Massachusetts.
F. A. Fariss, Virginia.
John Early, Missouri.
John P. Ebersole, Ohio.
Daniel Shamberger, Virginia.
John B. Sullivan, New York.
Edward E. Martin, New York.
Charles L. Haskell, Massachusests.
Maggie L. Moran, New Jersey.
Dr. F. W. Oliver, Iowa.
Charles Everett Cady, New York.
N. W. Fitzgerald, Lawyer, Wash., D. C.
E. A. Davidson, New York.
James M. Kimmons, Kansas.

LIST OF GRADUATES TO 1885.

We are often written to by persons in distant States to ascertain if "Prof. ——" is a graduate of the American Institute of Phrenology. Some persons whom we never before heard of have professed to be graduates of the Institute, and even publish it on their circulars, and endeavouring thus to secure consideration. The following list embraces the names of all the graduates up to and including the year 1885. All our students have a diploma, and it would be safe to ask to see the diploma of those who claim to be the graduates.

STATE	CLASS OF	STATE	CLASS OF
Abel, Miss Loretta.....	New York.....1877	Austin, Fred. H.....	Pennsylvania.....1882
Adams, Elijah M.....	Missouri.....1875	Ayer, Sewell P.....	Maine.....1878
Adams, Miss F. R.....	Iowa.....1883	Bateman, Luther C.....	Maine.....1870
Alderson, Matt. W.....	Montana...1875, 1879, 1880	Ballou, Perry E.....	New York.....1872
Alexander, Arthur J.....	Indiana.....1871	Bacon, David F.....	New Hampshire.....1875
Alexander, W. G.....	Canada.....1884	Baker, Wm. W.....	Tennessee.....1876
Alger, Frank George.....	New Hampshire.....1880	Baillie, James L.....	Ohio.....1881
Anderson, Alex. H.....	Canada.....1884	Bartholomew, Henry S.....	Indiana.....1885
Anderson, Samuel H.....	Pennsylvania.....1867	Battey, O. F.....	Massachusetts.....1883
Arnold, Chas. H.....	Massachussets.....1870	Beecher, Eugene.....	Connecticut.....1870
Arthur, Willie P.....	New York.....1874	Beverly, C. A., M.D.....	Illinois.....1872
Aspinwall, F. E.....	New York.....1872, 1873	Beall, Edgar C.....	Ohio.....1877
Austin, Eugene W.....	New York.....1878	Beer, John.....	New York.....1878

Bentley, Harriet W*.....	Connecticut.....	1881	Hawkins, William S.....	Connecticut.....	1866
Bell, James.....	New Hampshire.....	1881	Hamilton, Elliott A.....	Michigan.....	1867
Bonine, Elias A.....	Pennsylvania.....	1868	Haller, John S.....	Pennsylvania.....	1868
Brown, D. L.....	Iowa.....	1872	Hardy, John N.....	Wisconsin.....	1870
Bonham, Elisha C.....	Illinois.....	1875	Haley, William T.....	California.....	1872
Bousson, Miss O. M. T.....	New York.....	1877, 1882	Haskell, Chas. L.....	Massachusetts.....	1885
Brettell, Montague.....	Ohio.....	1875	Hathaway, D. E.....	Massachusetts.....	1874
Brethour, E. J.....	Canada.....	1884	Hambleton, Harland E.....	Ohio.....	1875
Brownson, Rev. A. J.....	Indiana.....	1884	Hawley, Edwin N.....	Ohio.....	1876
Bullard, J. H.....	New York.....	1866	Harriman, O. B., M.D.....	Iowa.....	1876
Buck, Marion F.....	New York.....	1868	Hasie, Geo. E. (Lawyer).....	Mississippi.....	1879
Burnham, A. B.....	Wisconsin.....	1881	Henderson, Francis M.....	Illinois.....	1867
Burr, Rev. W. K., M.A. Ph.D.....	Canada.....	1884	Henderson James.....	New York.....	1872
Candee, E. E.....	N. Y., 1873, 1875, 1878, 1880		Herrick, Miss M. E.....	Massachusetts.....	1884
Cady, Charles Everett.....	New York.....	1885	Hilleary, Louis N., M.D.....	Iowa.....	1877
Campbell, H. D.*.....	New York.....	1874	Hiser, E. W.....	Indiana.....	1878
Carman, Lewis.....	New York.....	1883	Hobson A. Norman.....	Iowa.....	1869
Catlin, David C.....	Connecticut.....	1877	Holm, J. S.....	Iowa.....	1874
Centerbar, J. S.....	New York.....	1884	Holt, Chas.....	New York.....	1875
Chester, Arthur.....	New York.....	1870	Holt, Mrs. Mirian J.....	Texas.....	1876
Chesley, Egbert M.....	Nova Scotia.....	1872	Hoffman, Uriah J.....	Indiana.....	1874
Chandler, G. E., M.D.....	Ohio.....	1873	Horne, William.....	Michigan.....	1874
Charles, G.....	Canada.....	1876	Howard, Paul.....	England.....	1885
Chapman, May.....	Massachusetts.....	1879	Humphrey, John C.....	Alabama.....	1868
Clark, Thomas*.....	New Jersey.....	1874	Hughes, Henry F.....	New York.....	1870
Clarke, Rev. Jas. Eugene.....	Maine.....	1877	Hummel, Levi.....	Pennsylvania.....	1876
Collins, John.....	Wisconsin.....	1878	Huggings, L. E.....	Ohio.....	1877
Condit, Hilyer.....	New Jersey.....	1867	Iv'ing, Mrs. P. W.....	Connecticut.....	1874
Constantine, Rev. A. A.....	New Jersey.....	1875	Jackson, John P.....	England.....	1867
Constantine, Miss Eliza.....	New Jersey.....	1875, 1884	Jamison, John A., jr.....	New York.....	1884
Cowan, John, M.D.....	New York.....	1870	January, Chas. P.....	Iowa.....	1879
Cook, J. R.....	Ohio.....	1872	Jennings, Alfred.....	Massachusetts.....	1872
Curren, Orville.....	Michigan.....	1873	Johnson, J. C.....	Massachusetts.....	1884
Curren, Thomas.....	Michigan.....	1873	Jones, Isaac S.....	New Jersey.....	1868
Curren, H. W.....	Michigan.....	1874	Jones, John W.....	Indiana.....	1868
Cray, Edward A.....	Rhode Island.....	1885	Keith, A. B.....	Iowa.....	1877
Creamer, Edward S.....	New York.....	1866	Kimmons, James M.....	Kansas.....	1884, 1885
Crum, Rev. Amos.....	Illinois.....	1870	Kindig, David S.....	Ohio.....	1877
Daly, Oliver Perry.....	Iowa.....	1868	King, David M.....	Ohio.....	1868
Danter, James F. M.D.....	Canada.....	1870	King, George L.....	Ohio.....	1884
Darling, Edgar A.....	New York.....	1885	Kirkpatrick, Robert.....	Montana.....	1879
Davidson, E. A.....	New York.....	1885, 1883	Kirven, P. E.....	Louisiana.....	1881, 1882
Davis, Edgar E.....	Iowa.....	1885	Knowles, Frank B.*.....	New York.....	1883
Davis, Wallace.....	Pennsylvania.....	1875	Lane, Rev. John C*.....	Missouri.....	1869
Detwiler, D. W.....	Pennsylvania.....	1880	Langley, M. L.....	Arkansas.....	1872
Dill, Rev. A. Cushing.....	New Jersey.....	1883	Lauer, Rev. J. D.....	Ohio.....	1874
Diehm, Joseph.....	Kansas.....	1885	Lawrence, Alva jr.*.....	New York.....	1876
Doolittle, Orrin.....	New York.....	1885	La Rue, Franklin.....	Montana.....	1882
Dornbach, H. F. A.....	Valparaiso, S. A.....	1885	Leavitt, Levi R.....	New Hampshire.....	1870
Dodge, Lovell.....	Pennsylvania.....	1867	Leininger, John Wesley.....	Canada.....	1883
Downey, Rev. T. Jefferson.....	Ohio.....	1867	Lemon, J.....	New York.....	1884
Dodds, Rev. David, M.D.....	Iowa.....	1877	Lester, D. C.....	Pennsylvania.....	1872
Duncan, J. Ransom.....	Texas.....	1875	Lee, Rev. Geo. A.....	Pennsylvania.....	1873
Du Bois, D. C.....	Iowa.....	1877	Leonard, B. A.....	Massachusetts.....	1880
Drury, Andrew A.....	Massachusetts.....	1882	Linvil, C. H.....	Pennsylvania.....	1879
Eadie, Andrew B.....	Canada.....	1877	Lischer, M. E.....	New York.....	1883
Early, John.....	Ireland.....	1885	Lockard, E. M.....	Pennsylvania.....	1883, 1884
Ebersole, John P.....	Ohio.....	1885	Macduff, Rev. R. E.....	Kentucky.....	1872
Eckhardt, P.....	Illinois.....	1884	Mack, H. Q.....	New York.....	1867
Emerick Lycurgus.....	Illinois.....	1876	Macrea, Miss Flora.....	Australia.....	1884
Espy, John Boyd.....	Pennsylvania.....	1875	Mann, H. jr.....	Vermont.....	1883
Evans, Henry W.....	Pennsylvania.....	1867	Martin, Edward E.....	New York.....	1885
Fairbanks, C. B*.....	New York.....	1872	Matley, John.....	California.....	1870
Fairfield, John C.....	Pennsylvania.....	1876	Matlack, A. S.....	Ohio.....	1872
Fariss, F. A.....	Virginia.....	1885	Mason, James.....	Massachusetts.....	1880
Ferry, A. L.....	Illinois.....	1881, 1884	Mason, Lott, M.D.....	Illinois.....	1869
Field, J. H.....	Colorado.....	1866	Mason, A. Wallace.....	Canada.....	1874
Fowler, Miss Nellie.....	New Jersey.....	1884	Mackenzie, J. H.....	Minnesota.....	1873
Fleisch, Jacob.....	Ohio.....	1870	Manners, J. H*.....	New Zealand.....	1877
Foster, Felix J.....	Mississippi.....	1870	Mannion, Frank.....	Iowa.....	1879
Foster, Henry Ellis.....	Tennessee.....	1879	McCoy, Jason B.....	Ohio.....	1885
Fraser, J. A. G.....	Canada.....	1877, 1882	McDonald, Duncan.....	Michigan.....	1867, 1882
Freeman, Chas. E.....	Iowa.....	1880	McIntosh, James.....	Ohio.....	1867
Friedrich, Martin.....	Pennsylvania.....	1882	McDavid, J. Q.....	South Carolina.....	1874
Fitzgerald, Nat. Ward.....	Washington, D. C.....	1885	McNeil, James.....	New York.....	1873
Gause, Mrs. Elva P.....	North Carolina.....	1875	McCrea, James.....	Illinois.....	1873
Gaumer, Levi.....	Iowa.....	1876	McLaughlin.....	Canada.....	1882
Gibbs, H. Clarence.....	Wisconsin.....	1874	McKee, William C.....	Ohio.....	1879
Giles, J. C.....	Texas.....	1885	Merrifield, John C.....	Canada.....	1868
Gillis, Benjamin.....	Missouri.....	1875	Meller, Frank J.....	Illinois.....	1881
Gluckler, Ralph J.....	New York.....	1882	Memminger, Thos. F. W.....	Virginia.....	1881
Goodrich, Geo. D.....	Minnesota.....	1877	Miller, E. P., M.D.....	New York.....	1867
Guilford, Ira L.....	Michigan.....	1876	Mills, Joseph.....	Ohio.....	1868
Granberry, Prentiss S.....	Mississippi.....	1873	Mills, Rev. J. S.....	Ohio.....	1872
Green, William R.....	Pennsylvania.....	1874	Miller, B. Frank.....	California.....	1882
Greear, Rev. Samuel J.....	Illinois.....	1875	Moran, Maggie L.....	New Jersey.....	1885
Grob, Samuel.....	Pennsylvania.....	1881, 1882	Morrison, Edward J.....	Illinois.....	1868
Grumman, William E.....	Connecticut.....	1885	Moatz, Lewis.....	Ohio.....	1869

* Deceased.

* Deceased.

THE AMERICAN INSTITUTE OF PHRENOLOGY.

Moore, Joseph H.....	North Carolina.....	1877	Welles, R. W.....	Connecticut.....	1879
Morris, George.....	Canada.....	1878, 1884	West, Mrs. Mary A.....	New York.....	1870
Musgrove, William.....	England.....	1875	Whitaker, John.....	New York.....	1869
Mully, A. E. F.....	New York.....	1882	Wightman, Chas S.....	Rhode Island.....	1872
Newman, A. A.....	Illinois.....	1867	Wiest, Ezra.....	Pennsylvania.....	1875
Oestergard, J. C.....	Denmark.....	1883	Wild, John P.....	Massachusetts.....	1885
Oliver, Dr. F. W.....	Iowa.....	1875	Wildman, Wellington E.....	Ohio.....	1876
Olney, Henry J.....	Michigan.....	1885	Wildman, Mrs. W. E.....	Ohio.....	1876
Osgood, Rev. Joel.....	Ohio.....	1880	Winkler, Henry.....	Indiana.....	1877
Patterson, John A.....	Missouri.....	1872	Wood, Oscar D.....	New Jersey.....	1875
Parker, R. G.....	Missouri.....	1874	Wood, Elbert B.....	Kentucky.....	1879
Parker, Howell B.....	Georgia.....	1875, 1880, 1885	Worrall, M. B.....	Ohio.....	1877
Patten, Edward M.....	Illinois.....	1874	Wyscarver, T. J.....	Ohio.....	1874
Patten, William Perry.....	Nebraska.....	1876	Young, C. P. E.....	Sweden.....	1883
Paulsen, John H.....	Louisiana.....	1877	Young, Henry.....	Ohio.....	1875
Pentney, John.....	Canada.....	1877			
Peirsoll, Sampson H.....	West Virginia.....	1870			
Perrin, Edward M.*.....	Kansas.....	1869			
Perry, A. D.....	Massachusetts.....	1883			
Petry, Daniel F.....	New York.....	1866			
Philbrick, S. F.....	Ohio.....	1873, 1874			
Pierce, David F.....	Connecticut.....	1868			
Price, David R.....	Iowa.....	1868			
Pratt, Benj. F., M. D.....	Ohio.....	1875			
Prather, Miss M. O.....	Kansas.....	1876			
Purcell, E. M.....	Iowa.....	1874			
Ream, Elmer.....	Indiana.....	1885			
Reed, Anson A.....	Connecticut.....	1868			
Richardson, M. T.....	New York.....	1870			
Richie, Porter D.....	Illinois.....	1872			
Richards, William.....	Pennsylvania.....	1873			
Robbins, T. L.....	Massachusetts.....	1872			
Roberts, I. L.....	Florida.....	1872			
Roberts, Jas. Thos.....	California.....	1882			
Roberts, Margaret E.....	Pennsylvania.....	1882			
Robinson, Frank O.....	Tennessee.....	1885			
Robinson, G. M.....	Illinois.....	1882			
Roeseler, John'S.....	Wisconsin.....	1884			
Rogers, Ralph.....	Tennessee.....	1875			
Romie, Paul T.....	California.....	1877			
Rosenbaum, Fred. Wm.....	Ohio.....	1878			
Sage, Enos A.....	New Jersey.....	1868			
Sadler, David M.....	Maryland.....	1879			
Sahlin, Mrs. M. A.....	New York.....	1884			
Sanches, Mrs. Marie.....	Sweden.....	1880			
Sargent, C. E.....	New Hampshire.....	1874			
Scheaffer, J. S.....	Iowa.....	1884			
Scott, Martha A.....	Colorado.....	1881			
Scott, Rev. William R.....	Illinois.....	1883			
Seybold, Frederick J.....	Illinois.....	1870			
Senior, F. D.....	New York.....	1872			
Shamberger, Daniel.....	Virginia.....	1885			
Shultz, R. C., M. D.....	Iowa.....	1876			
Sievert, Miss Sophie.....	New York.....	1880			
Smith, Bartholomew.....	Rhode Island.....	1869			
Smith, Lundy B.....	Missouri.....	1874			
Smith, Thomas William.....	Canada.....	1876			
Snell, C. L.....	Pennsylvania.....	1873			
Sommers, Jervis.....	Connecticut.....	1869			
Spring, Geo. A.....	New York.....	1882			
Sterling, J. R.....	Canada.....	1884			
Stewart, Rollin.....	Vermont.....	1867			
Strong, J. Wilmer.....	Pennsylvania.....	1866			
Stocketon, Miss Alice.....	Illinois.....	1874			
Stone, W. T.....	Indiana.....	1867			
Staples, Ernest L.....	Connecticut.....	1877			
Suares, Adolph B.....	New York.....	1876			
Sullivan, John B.....	New York.....	1880			
Swain, Henry E.....	New York.....	1870			
Swift, Miss Edna A.....	Connecticut.....	1873			
Taggart, Chas. Alvan.....	Massachusetts.....	1880			
Thackston, T. B.....	South Carolina.....	1885			
Thompson, J. H.....	Pennsylvania.....	1866			
Thompson, Benj.....	Iowa.....	1867			
Thompson, D. D.....	Canada.....	1873			
Thompson, Miss M. B.....	Ohio.....	1876			
Thurston, Calvin H.....	Indiana.....	1869			
Thomas, J. W.....	Missouri.....	1879			
Tower, Henry M.....	Massachusetts.....	1881			
Turner, P.....	Illinois.....	1872			
Turner, Thomas.....	New York.....	1878			
Wahl, Albert.....	Illinois.....	1879			
Waide, Robert.....	Indiana.....	1882			
Wait, A. H.....	Kansas.....	1883			
Wallace, A. B.....	Tennessee.....	1877			
Walters, Eli.....	Ohio.....	1874			
Waterman, L. E.....	New York.....	1870			
Watson, Chas. S.....	New Hampshire.....	1869			

CHARTER.

An Act to incorporate "THE AMERICAN INSTITUTE OF PHRENOLOGY," Passed
April 20, 1866.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

Section 1. Amos Dean, Esq., Horace Greely, Samuel Osgood, D.D., A. Oakey Hall, Esq., Russell T. Trall, M. D., Henry Dexter, Samuel R. Wells, Edward P. Fowler, M. D., Nelson Sizer, Lester A. Roberts and their associates, are hereby constituted a body corporate by the name of "THE AMERICAN INSTITUTE OF PHRENOLOGY," for the purpose of promoting instruction in all departments of learning connected therewith, and for collecting and preserving Crania, Casts, Busts and other representations of the different Races, Tribes and Families of men.

Section 2. The said corporation may hold real estate and personal estate to the amount of one hundred thousand dollars, and the funds and properties thereof shall not be used for any other purposes than those declared in [the first section of this Act.

Section 3. The said Henry Dexter, Samuel R. Wells, Edward P. Fowler, M.D., Nelson Sizer, and Lester A. Roberts are hereby appointed Trustees of said incorporation, with power to fill vacancies in the Board. No less than three Trustees shall constitute a quorum for the transaction of business.

Section 4. It shall be lawful for the Board of Trustees to appoint Lecturers and such other instructors as they may deem necessary and advisable, subject to removal when found expedient and necessary, by a vote of two-thirds of the members constituting said Board ; but no such appointment shall be made until the applicant shall have passed a personal examination before the Board.

Section 5. The Society shall keep for free public exhibition at all proper times, such collections of Skulls, Busts, Casts, Paintings and other things connected therewith, as they may obtain. They shall give, by a competent person or persons, a course of not less than six free lectures in each and every year, and shall have annually a class for instruction in Practical Phrenology, to which shall be admitted gratuitously at least one student from each Public School in the City of New York.

Section 6. The corporation shall possess the

* Deceased.

powers and be subject to the provisions of Chapter 18, of part 1, of the Revised Statutes, so far as applicable.

Section 7. This Act shall take effect immediately.

THE FACULTY OF INSTRUCTION.

Among those who have been engaged as lecturers in connection with the Institute for many years, we may mention the following :

Nelson Sizer, the chief Examiner in the office of Fowler & Wells for thirty-five years, lectures on the Theory and Practice of Phrenology and Physiognomy.

H. S. Drayton, A. M., editor of THE PHRENOLOGICAL JOURNAL, treats of Mental Science and its relations to Physiology and Metaphysics.

Mrs. Charlotte Fowler Wells lectures on the History and Progress of Phrenology in America.

Nelson B. Sizer, M. D., Anatomy, Physiology and Diseases of Body and Brain.

John Ordronaux, M. D., LL.D., late State Commissioner of Lunacy, lectures on Insanity and Jurisprudence.

Robert A. Gunn, M. D., Magnetism and Psychology.

James B. Richards, A. M., Idiocy, Imbecility and Abnormal Mentality.

Rev. Edward P. Thwing, Ph. D., Psychic Phenomena, and Hypnotism as an aid in Surgery.

—— Elocution and Vocal Culture in relation to Public Speaking.

ADVICE FOR STUDENTS.

In coming to New York you should purchase a through ticket if possible, and if you have a trunk or valise which you do not need on the way, get it checked, and thus save care.

Students should prepare the means for payment of tuition and their necessary expenses during their stay in New York, before they come. Those who can do it should bring their funds in drafts, then they are not subject to the danger of losing their money on the way. Those who bring money can have it deposited in bank while here, thus preventing the possibility of loss.

We advise students, after buying their passage tickets, to have only so much money within reach as will pay their current expenses on the way here. The balance, if not in form of draft, should be sewed into a pocket in the undergarment. Nor should students inform strangers who they are, where they came from, where they are going, or their business in New York. For in all large cities there are always men on the look-out for strangers whose business it is to employ some cunning device to rob them.

On landing at Jersey City from the West or South, retain your baggage check—pay no attention to agents on the train—and come to our office, 753 Broadway, corner Eighth Street. If you come into the city in the night, go to the Sinclair House, Broadway, corner of Eighth St., directly opposite our office.

ROOMS AND BOARD.

Boarding can always be obtained near the Institute at moderate prices. From four to five dollars a week usually cover the expense. Sometimes hygienic students club together and take rooms, and procure their own food to suit themselves.

We take special pains to aid students to find desirable quarters, and to facilitate any purchases which they may wish to make, or give them directions as to places of interest to be visited, and the proper way to make their stay in the city safe, pleasant and instructive.

OPPORTUNITIES IN NEW YORK.

Students have free opportunity to become familiar with our extensive cabinet.

Our class sessions are so arranged that students can attend the popular lectures and other entertainments given in the city ; they can visit museums of art and science, public libraries, or the criminal courts, penal and charitable institutions, and numerous other places and objects of interest.

HEALTH IN NEW YORK.

Sometimes people feel afraid to come to a great city, thinking it may not be healthful. We believe that New York, with its present modern improvements for cleanliness and ventilation, is as healthy a place as there is in the land, unless it be some mountain-top. And most of our students not only maintain their health perfectly, but gain during the course, sometimes ten pounds in weight.

OUTFIT.

Some ask us in respect to outfit. Our reply is, that one can spend from fifty dollars to two hundred dollars profitably, in the way of outfit, or can start with a very little, and add to it as he has means and feels disposed. A man can start with nothing but his hands and his tongue to work with. He may start with ten dollars in the way of apparatus and material, but he would do better with fifty dollars.

Those who contemplate visiting the city for the purpose of attending the Institute will do well to cut out and bring this article in their pocket, for reference when about to reach New York, so as to avoid confusion and mistakes.

OLD STUDENTS.

As an evidence of the value of the Institute course, we may mention that nearly every year one or more students return to take a second course, which is afforded to them at a nominal sum, and they are enthusiastic in praise of its value to them in developing new phases of the subject, and reimpresing and intensifying the old ; besides giving a double portion of the practical part, so essential to success ; and we notice the marked difference in second-year students, especially after they have been in the field, and learned to make practical their knowledge.

AMERICAN INSTITUTE OF PHRENOLOGY

THE SESSION OF 1886 WILL OPEN ON THE FIRST TUESDAY OF SEPTEMBER.

THERE IS BUT ONE SESSION DURING THE YEAR.

This is the only Institution of the kind in the world where a course of thorough and practical instruction in Phrenology is given, and nowhere else can be found such facilities as are possessed by the American Institute of Phrenology, consisting of a large cabinet of skulls—human and animal—with busts, casts, portraits, anatomical preparations, skeletons, plates models, etc.

THE COURSE OF INSTRUCTION.

This consists of about one hundred and fifty lectures and lessons covering a term of eight weeks—one lesson being given each morning and two during the afternoon.

TOPICS.

I. GENERAL PRINCIPLES.

The philosophy of the organic constitution, its relation to mind, character, and motive; mental philosophy, or the efforts of the best thinkers in all ages to find out the laws and operations of the mind and give their speculations the form of science.

II. TEMPERAMENTS.

as indicating quality and giving tone and peculiarity to mental manifestation, also as affecting the choice of occupation; the law of harmony, and heredity as connected with the marriage relation; what constitutes a proper combination of temperaments with reference to health, long life, tendency to talent, virtue and vice.

III. PHRENOLOGY.

Mental development explained; the true mode of estimating character according to Phrenological principles; Comparative Phrenology, the development and peculiarities of the animal kingdom, hints toward their gradation in the scale of being from the lowest to the highest; the facial angle, embodying curious and interesting facts relative to the qualities and habits of animals, tending to show that disposition is according to organization; instinct and reason; the Phrenology of crime; imbecility and idiocy, causes and management; the elements of force, energy, industry, perseverance; the governing and aspiring groups; the division between the intellectual, spiritual, and animal regions of the brain, and how to ascertain this in the living head; the memory, how to develop and improve it; the reasoning faculties and the part they play in civilization; location of the organs of the brain, how to estimate their size, absolute and relative.

IV. PHYSIOGNOMY.

The relations between the brain and the face, and between one part of the system and another as indicating character, talent, and peculiarities, voice, walk, expression, etc.

V. History of Phrenology in America and Europe,

and the struggles and sacrifices of its pioneers in disseminating its principles, especially in this country; and its enriching influence on education, literature, domestic life, government, morality and religion.

VI. ETHNOLOGY.

The races and tribes of men, their peculiarities, and how to judge of nativity of race; especially how to detect infallibly the skulls of the several colored races.

VII. DISSECTION

and demonstration of the human brain; microscopic illustrations of different parts of the system in health and disease.

VIII. Anatomy and Physiology.

The brain and nervous system; the bones and muscles; how to maintain bodily vigor and the proper support of the brain; reciprocal influence of brain and body; respiration; circulation; digestion; growth and decay of the body; exercise; sunlight; sleep.

IX. Objections to Phrenology,

whether anatomical, physiological, practical, or religious, will be considered; how the skull enlarges to give room for the growing brain; the frontal sinus; loss or injury of the brain; thickness of the skull; fatalism, materialism, moral responsibility, etc.

X. Phrenology and Religion.

The moral bearings of Phrenology, and a correct physiology; its relation to religion; home training of the young as applied to education and virtue.

XI. CHOICE OF OCCUPATIONS

Special attention will be given to this branch of the subject; what organizations are adapted to the different professions and pursuits, and how to put "the right man in the right place."

XII. Phrenology and Marriage.

The right relation of the sexes ; what mental and temperamental qualities are adapted to a happy union and healthy offspring, and why.

XIII. Natural Language of the Faculties.

The attitudes, motions, carriage of the head, style of speech growing out of the activity of the different organs, and how to read character thereby.

XIV. EXAMINATIONS

of heads explained ; practical experiments ; heads examined by each of the students, who will be thoroughly trained and instructed how to make examinations private and publicly ; especially training in the examination of skulls.

XV. HYGIENE.

How to take care of the body as to dress, rest, recreation, food, diet, right and wrong habits ; what food is best for persons of different temperaments and pursuits ; what food tends to make one fat or lean ; what feeds brain and muscle ; stimulants, their nature and abuse, what to avoid, and why.

XVI. PSYCHOLOGY.

Under this head, mesmerism and clairvoyance will be explained, and the laws discussed on which they are supposed to depend.

XVII. HEREDITY.

The law of inheritance in general and in particular ; resemblance to parents, how to determine which parent a person resembles ; what features of face, what classes of fac-

ulties or portions of the general build are inherited from the father or from the mother.

XVIII. INSANITY,

its laws and peculiarities ; the faculties in which different persons are most likely to be insane, and how to detect it in a person.

XIX. IDIOCY,

its causes and how to avoid them ; its peculiarities and how to understand them ; how to detect it where the head is well-formed.

XX. ELOCUTION.

How to cultivate the voice ; eloquence, how to attain the art ; careful instruction in reading and speaking with a view to success in the lecture-field.

XXI. HOW TO LECTURE.

The best methods of presenting Phrenology and Physiology to the public ; how to obtain audiences and how to hold and instruct them ; general business management in connection with the lecture-field.

XXII. Review and Examination.

Questions on all points relating to the subject, which may be proposed by the students answered ; in turn, students will be carefully examined in the branches taught who will give in their own words their knowledge of the subject.

XXIII. How to Apply Phrenology practically in reading character by the combinations of faculties, and how to assign to each person the true field of effort in education, business, social adaptation, and, in short, how to make life a success and its opportunities the means of happiness.

Finally, it is the aim of the instructors to transfer to students, so far as it is possible, all the knowledge of Anthropology which a long experience in the practice of their profession has enabled them to acquire—in a word, to qualify students to take their places in this man-improving field of usefulness. Time must, before long, make some of their places vacant, and now the opportunity is afforded students to secure what they can teach.

TEXT-BOOKS.—Among the works most useful to be studied by those who wish to master Phrenology, we recommend the following “STUDENT’S SET,” which will be sent by express for \$10 when all are ordered at one time :

Brain and Mind ; a Text-Book.	By Drayton & McNiell	-	\$1 50
Forty Years in Phrenology.	By Nelson Sizer. Illustrated	-	1 50
How to Read Character.	By S. R. Wells. Illustrated	-	1 25
Constitution of Man.	By George Combe	- - - -	1 50
New Physiognomy.	By S. R. Wells. 1,000 Illustrations	-	5 00
Choice of Pursuits.	By Nelson Sizer. Illustrated	- -	1 75
Popular Physiology.	By R. T. Trall, M. D.	- - - -	1 25
Phrenological Bust.	By Fowler & Wells	- - - -	1 00

The opening exercises will be held in the hall of the Institute, 753 Broadway, at 2 o'clock P.M., and it is very desirable that all students be present at the time. When this is not practicable, there should be as little delay as possible.

TERMS.—The cost of tuition for the full course, including diploma, for ladies and gentlemen, is reduced to **\$50**. Incidental expenses in New York, including board, need not cost more than **\$45**.

It is desirable that all who intend to be students should send in their names at an early day. For additional information address, FOWLER & WELLS Co., 753 Broadway, N. Y.

FIELD NOTES.

MR. DUNCAN MACDONALD, of the Class of '67, is one of the most successful of our students. He is working in the Pacific States, and wherever he goes makes a good impression which lasts. He can be addressed at San Francisco, Cal.

L. C. BATEMAN, of the Class of '70, is doing the world good by his successful work, not only as an eloquent and intelligent lecturer, but as a writer for the press. He can be addressed at his home, North Searsmont, Maine.

U. J. HOFFMANN, of the Class of '74 being Associate Principal of the Normal School at Aurora, Ill., makes his worthy work a means of great good to the entire State by widening the knowledge and enhancing the skill of the pupils as they become teachers. Every teacher should understand the science of mind as revealed by Phrenology. Mr. Hoffman has just written a most valuable work: "The Science of Mind Applied to Teaching," as the outcome of his course of instruction in the Institute. FOWLER & WELLS CO., PUBLISHERS.

DR. B. F. PRATT, of the Class '75, is lecturing with marked success, in Iowa, where he attracts large audiences; there is room enough in that State for twenty good phrenologists.

HOWELL B. PARKER, Class of '75, '80 and '85, has made Phrenology exceedingly valuable to the people of Georgia, by teaching for ten years the best school in the State on the principles of corporal and mental physiology. It would be a blessing to other schools to have a teacher thus qualified. He now enters Phrenology as a steady profession and the people of his State will be the gainers, as his influence may then be felt in forty counties instead of one or two.

MR. GEORGE MORRIS, Class of '78 and '84, is doing a good business, as usual, in Iowa and other Western States. He is a great worker, and heartily in earnest in all he does. He regards Phrenology as having done him great good personally; and financially he has secured abundant success.

ANDREW A. DRURY, of the Class of '85, is lecturing in Maine. He is a most earnest worker, tells the plainest of plain truth in his examinations, and heartily believes in the beneficent influence of Phrenology when properly set forth and applied. We hear good reports of him.

A. WALLACE MASON, of the Class '74, has a Phrenological office in Toronto, Canada, and is making a favorable impression upon the minds of the people, and bringing the science of Phrenology to bear upon the improvement of those who consult him.

J. M. KIMMONS is in Kansas, and reports good prospects for the future.

MR. HUMMEL, Class of '76, is in Pennsylvania, and we frequently hear of his good work and success.

A. D. PERRY, Class of '83 has entered the field in the West, and we expect to hear good news from his efforts.

DR. U. E. TRAER, is lecturing in Iowa with his usual success. He may be reached by addressing him at his home, Vinton, Iowa.

DR. OLIVER, of Algona, Iowa, of the Class of '85, is pushing the good cause and is open to invitations to deliver courses of Lectures.

REV. GEO. A. LEE, Class of '73 writes us from Virginia that he is devoting himself to lecturing on Phrenology, and is securing decided success.

A. B. KEITH, Class of '77, makes his paper in Iowa vocal with Phrenological truth, and with his clear head and ready pen is doing work that will last.

REV. DAVID DODD, of the Class '77, is preaching in Iowa, and finds Phrenology a great aid to him in his ministerial and pastoral work, his solid talents will make him felt wherever he works.

W. G. ALEXANDER, Class of '84, is operating with excellent success in the State of Iowa. His frequent orders for books and charts indicate that he and his subject are duly appreciated, as they deserve to be.

H. E. FOSTER, of Tennessee, Class '79, has opened an office in Louisville, Ky., where he exhibits busts and portraits illustrating Phrenology, and also keeps a stock of books on the subject. He will be found worthy of confidence.

IRA GUILFORD, Class of '71, is doing excellent work in the West. His frequent orders for books show that he is planting the science wherever he goes, and prospering as good workers deserve to who have talent and knowledge.

REV. W. R. SCOTT, Class of '83, is settled over a thriving parish in Chicago, and finds Phrenology a decided assistance to him in the interpretation of Mental Philosophy as taught in colleges, and as seen in the living subject in actual life.

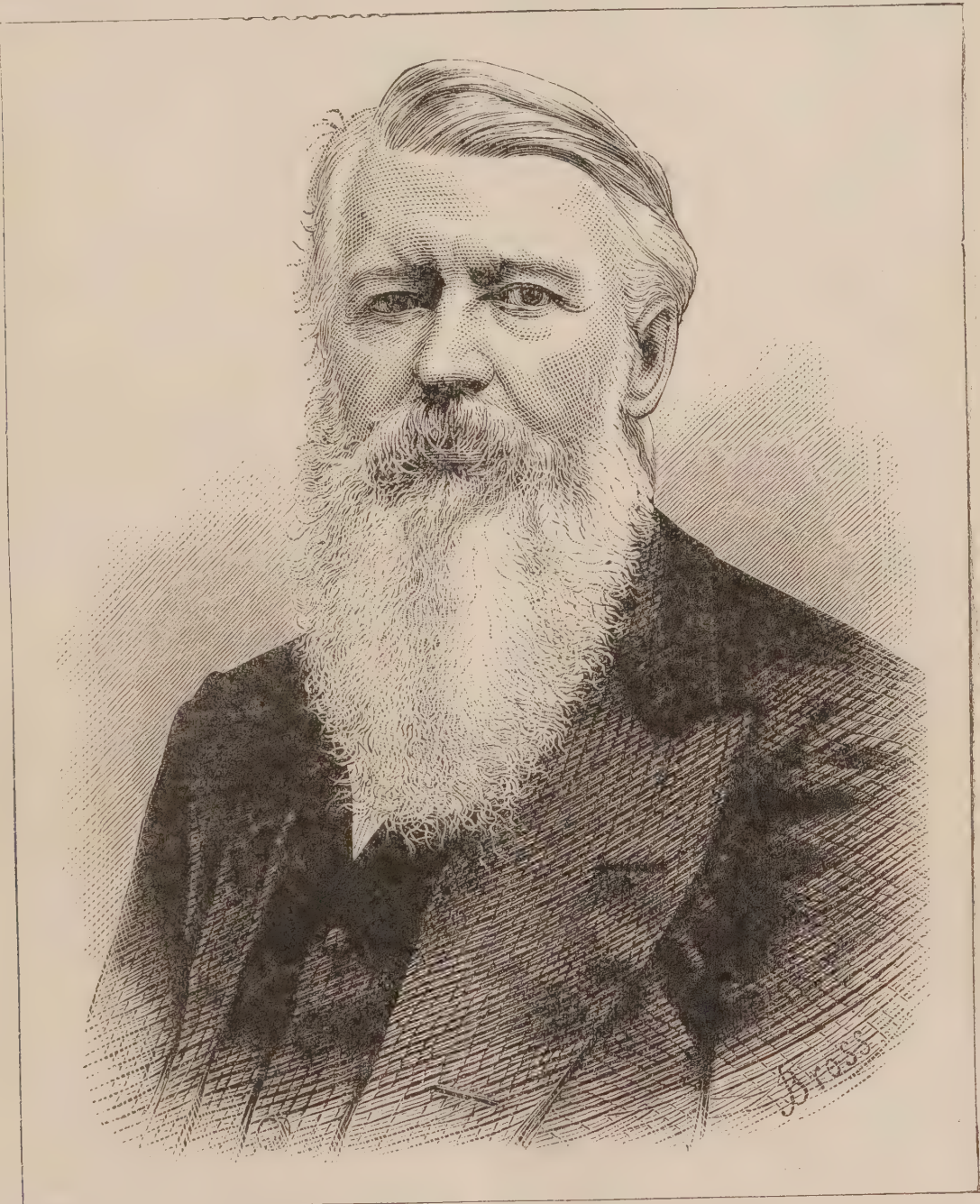
REV. A. C. DILL, of the Class of '83 has returned from Dakota, and taken charge of a church in New Jersey, and finds Phrenology eminently useful as an aid in his work among a people representing different phases of life and character. All of our clerical graduates speak warmly of the ease and naturalness with which strangers can be approached and molded, when one understands the strength, scope and peculiarities of their mind and character.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 82. 1886.

NUMBER 4.]

April, 1886.

[WHOLE No. 568.]



JOHN B. GOUGH,

THE APOSTLE OF TEMPERANCE.

THIS remarkable man is a study, and for more than forty years ; how so slight he has been an astonishment to the world a man, so excitable, and so intense could

do such an amount of work as he has done, and hold on so well has been to many a mystery ; and that he did not have apoplexy twenty years ago, in the midst of some enthusiastic and excitable effort has also been a wonder to physiologists. He really had a very tenacious and tough quality of organization ; was always very active and very energetic, and before he became a temperance man and a temperance lecturer, he endured more hardships than any common constitution would be likely to sustain. The truth is, he had great recuperative power and excellent lungs, and revitalized his blood rapidly and completely.

He was distinguished for a few strong points of character and talent. First, the ability to express in words and actions all his thoughts and feelings, and expressing so fully his excited feelings is a key to his wonderful influence over others.

He had strong perceptive power, saw everything, gathered knowledge rapidly, appreciated whatever was droll, grotesque or peculiar, and everything that had in it the shape of sympathy and tenderness. Hence he could go "from grave to gay, from lively to severe," from the most solemn facts to the most ludicrous and laughable incidents, and bring them all into use to minister to his influence on the popular mind.

He had very strong Benevolence, was sorry for everything that suffered, and entered heartily into the wants and woes of others, and felt like serving and assisting and doing good.

He had a very active imagination, a creative fancy ; he could make common things seem dramatic and real. His Ideality enabled him to see all that is beautiful and to clothe his thoughts in eloquent language. His Approbateness was large, hence he had a strong desire to be approved. His Self-esteem was not very large, hence he was approachable and familiar and friendly with all.

His moderate Secretiveness enabled

him to live out and act out his thoughts without restraint ; he had a wonderful faculty of entertaining others, and of presenting things that were droll in a very vivid manner, and also that which was pathetic in a most tender and sympathetic way.

Again, his Hope was strong ; his Faith earnest, and he was kind, and liberal, and self-sacrificing to a fault. His Mirth, Imitation, Intuition, power to understand character and power to explain were among his strong qualities, and while he was able to paint that which is droll, and grotesque and most startling, he was equally able to describe the pathetic, the sympathetic, the loving and the tender, so that his audience would be convulsed with laughter or melted to tears as he wielded his magic power over them.

He had a wonderful memory of anecdotes, and his large Language and power of Imitation enabled him to tell a story with wonderful effect. His affections were among his strong traits ; he made friends everywhere, and perhaps no man in this country had more loving and intimate friends than he. Every one gave to him the hand of brotherhood, and felt that he was a brother. He was an unselfish, self-sacrificing and lovable man. When shall we look on his like again ?

S.

It is a pleasing task to write of the good man. Great men have their trumpeters and eulogists, who are much given to exaggeration when describing some act of notable sagacity or genius ; and whether or not its effect upon the world be really beneficial does not appear in the ascription so much as the point that it was a grand intellectual success or a triumph of persistence. The good man who has spent his life, for the most part, in teaching others the principles of virtue and humanity, who has spoken and acted on every occasion in behalf of social improvement and individual reform ; who has given in himself an example of noble charity and a purified

life, commands our admiration and our love, and we can but speak of him with a fervid accent, an exulting tongue.

One of the good men that we are glad to name among American benefactors has just died : died at his post of duty, for it was in the midst of an address glowing with earnestness, a temperance address in which he was making one of his strongest appeals to young men to beware of the enthralling cup, that John B. Gough was stricken with paralysis and four days later died in Philadelphia on the 18th of February.

He was born in England, at Sandgate, Kent, August 22, 1817. His father was a private soldier in the British Army, and had married a village school teacher. In 1829 the Goughs were assisted to emigrate and came to the United States, and for two years lived in Oneida County, New York. Young Gough was then apprenticed to a bookbinder in this city. His youth was one of privation and narrow conditions, very little being afforded him in the way of school education. When he came to New York the opportunities which fell to him were mostly evil. His companions were loose livers. He learned to drink. He always had a passion for the stage and tried to become an actor. For a time his mimetic faculty, which was strong, brought him a little popularity. He was welcomed in beer shops and saloons for the songs he could sing and the spirited recitations he could give. But the applause, and the loose companionship, drew him lower. His efforts to do his work without giving up his nightly dissipation finally so strained his strength that he was on the verge of *delirium tremens*. He has told how at one time the tools of his trade seemed to turn to serpents and crawl about him. He escaped that time, but did not give up drinking until October, 1842, when, poor, shaken in health and depressed in spirits, almost drained of self-respect and energy, he was persuaded to attend

a temperance meeting. There he took the pledge of total abstinence, and at the same time there came upon him an irresistible yearning to go and do something for those who were suffering from the drink evil. In his autobiography he has described the difficulties of the undertaking to which he had devoted himself.

At that time the cause of temperance was not honored as now. Those who became its advocates were generally looked upon with suspicion, and when not abused they were ridiculed. But John B. Gough was well equipped for the new campaign. He was a born orator, and like almost all orators, from Demosthenes to Mr. Gladstone, he suffered from what has been called stage fright to the last. Writing after thirty-seven year's experience as a public speaker, he said : "I have never known the time when I did not dread an audience. Often that fear has amounted to positive suffering, and seldom am I called on to face an audience when I would not rather by far run the other way ; and as I grow older this suffering is increasing." Yet from the first his addresses took hold upon his hearers strongly. As an unknown young man he set forth, carpet-bag in hand to tramp through the New England States, glad enough to obtain seventy-five cents for a temperance lecture. But this did not last long. The reputation of the fiery young speaker who carried his arguments home by striking anecdotes and examples from every day life, began to spread. He was able to demand five dollars a lecture in a short time. In the first year he spoke three hundred and eighty-six times. Thenceforward, for seventeen years he dealt only with temperance, and during that time he addressed five thousand audiences.

He travelled through the Eastern and Southern States and Canada, everywhere creating a deep impression. His fame reached England and the London Temperance League persuaded him to visit Great Britain in 1853. He was enter-

tained by George Cruikshank, the veteran artist, and his first address, delivered at Exeter Hall produced a great sensation. Finding that the visitor's ability had not been overestimated, the National Scottish Temperance League urged him to prolong his stay, and he remained two years. It has been said that thousands of reclaimed drunkards testified to the practical value of Gough's labors. The Temperance League desired to retain his services, but he had engagements in the United States which could not be postponed, and in 1855 he returned and took up his old work. In 1857 he made another journey to England and remained there until 1860. After seventeen years of this special service he began to take up other subjects, literary and social, though from first to last his chief successes were on the temperance platform.

He remained steadily in the lecture field until 1882 when his health began to fail and prevented him from responding to the ever constant demand for his appearance on the platform. In 1846 he published a short autobiography, which was subsequently brought down to 1870. In 1881 he published "Sunshine and Shadows," a volume of recollections and anecdotes. In this he gave an interesting account of his methods of preparation and delivery. It also contains many proofs of a quick observation and retentive memory. He was happily married, and repeatedly bears testimony in his writings to the help he derived from his wife.

Gough's oratory was not acquired, but natural. He had no elocutionary training beyond some crude dramatic lessons in early youth. His reading was singularly restricted when he took the lecture platform. All his resources were peculiarly his own. In describing his own experience he once said: "After the first nervousness has passed, I have but little sensation, except the desire to make my audience feel as I feel, see as I see, and to gain dominion for the time

being over their wills and affections. If I succeed in this, or think that I have their sympathy, and especially should they be responsive, the fear is all gone, then comes a consciousness of power that exhilarates, excites, and produces a strange, thrilling sensation of delight." No one, as a writer truly says, who has heard John B. Gough speak probably suspected him of nervousness; but thousands will recall the peculiar magnetism of his glance when, thoroughly warmed to his subject, he would step forward, as if seeking to come nearer to his audience, "as if eager to look into their hearts, and give himself up, as it seemed, to a fiery flood of eloquence in which the passion that moved him was not less striking than the dignity, felicity and force of the language which clothed his vivid thoughts. At these moments he was eloquent to the point of inspiration, and there were few indeed who could listen untouched to his oratory. Nor are there many higher or nobler topics than that which he discussed so powerfully. An evil which exceeds any inherent in nature, perhaps not even excepting Death; an evil which hinders human progress more than any which for thousands of years have been the objects of human legislation and statecraft; an evil which doubles the hardships of poverty, assassinates all the family affections, turns love into loathing, brutalizes the highest intellect submitted to it, at every turn makes mischief, crime, misery; yet, an evil which men have until recently consented virtually to ignore, to talk all round, to let alone.

"The exploitation of this evil surely constitutes a life-purpose to which the best existence may well be devoted; an apostolic mission second to none in importance and nobility of aim. John B. Gough was no self-seeker, but a plain, genial, warm-hearted man, who loved his fellows and thought he could do no better with his gifts than help them. He has done well, and has left behind him

a record of duty performed, of high aims worthily upheld, of practical aid given to the sick and suffering, of support furnished the weak and hesitating, of light driven into men's minds as by flashes from above, of a trumpet tongue declaiming against the curse of this and all preceding ages."

When not away on his lecturing tours he lived quietly at Hillside, his beautiful country home on the ridge, dividing the water sheds of the Nashua and Blackstone rivers. The house is roomy and old-fashioned, facing the South, and well furnished and adorned with many rare and interesting objects picked up by Mr. Gough on his travels. The library is exceptionally fine and is especially rich in the works of Cruikshank, the English artist, who was a personal friend of Mr. Gough.

As could scarcely be otherwise he was hospitable and charitable. There was always a welcome at Hillside for every caller no matter what his condition or station in life, and no poor person ever went away cold or hungry. For years he supported the widow and family of Mr. Stratton, the man who once found him drunk in the streets of Worcester and gave him new hope for life. He was not ostentatious, but was always ready to answer the call of any of the local charitable institutions. At a lecture delivered before the New York Young Men's Christian Association, in December last, it was noted that his physical powers seemed to be failing. He began with his old energy and magnetism, but became exhausted before he was half through and his efforts to finish satisfactorily were almost painful to the audience. He appreciated his condition, and told a friend that he did not expect to live through the coming year. But it must be remembered that Mr. Gough had done an almost incredible amount of platform work. Up to the first of the present year he had delivered 8,567 lectures, and travelled fully half a million miles. Over one million copies of his

lectures, and more than one hundred thousand copies of his autobiography have been sold. He earned a large amount of money, but dispensed it freely and left but a small property, although sufficient to maintain his wife, who survives him, comfortably and to distribute, besides, the many charitable bequests of his will.

ODE TO SUCCESS.

O bid me to thy banquet sweet Success !
Unbar thy mystic gate to me, I pray ;
And let me feel the charm of thy caress,
And I will e'en forgive thy long delay.

My soul is weary of the ceaseless quest,
And panting for the draught so long withheld.

O bid me to thy feast and let me rest,
And all my doubt of thee shall be dispelled.

But let me come by honor's narrow street,
Though endless seem the rough, unbeaten road,

Marked all along with signals of defeat,
Where others fainted 'neath their heavy load.

The shorter paths are strewn with brilliant flowers,
And bright and tempting to the traveller seem ;

But in the shadow of those gilded bowers
Remorse is slowly waking from his dream.

Those who have fed Ambition's fires with sin,

Though all without may fair and faultless be,
While dark and troubled is the soul within,
Tossed on the billows of an angry sea.

So let me keep the straight unbending way,
With patience toiling t'ward the distant goal,

And gather strength and courage from delay,
Adding through conflict power to the soul.

That when at length I reach those sought-for heights,

And when my feet the charmed soil shall press,

When all around me shine those searching lights,

No blot shall mar the brow of my success.

ALMEDA COSTELLO.

FAMILIAR TALKS TO OUR YOUNG READERS—NO. 4.

LANGUAGE AND WEIGHT.

NOW we come to the consideration of one of the most interesting organs that man owns. All the organs and faculties given to us by the Creator are interesting and in one way or another necessary. To be perfect we need every one of the forty or more that are named in the series, because each plays some part in the affairs of life. I can not point to any that I should care to part with. Like the poor Scottish laborer who had eleven children and who found it so hard to give them enough to eat, and finally agreed to give one of them to a neighbor who had none; but when that neighbor came to the little cottage of the workman, and they looked over the half-clothed boys and girls that were having such good fun around the hearth-stone, the poor father couldn't spare this one because of something in his character; nor that one because she did so and so, and they went through the whole series of eleven without a decision. There was something in each that made the poor working man feel that he could not spare him or her just then, and the neighbor went away disappointed.

We have but to look into the nature and work of the different faculties for a little time to be convinced that they are all important, while some appear to be more useful than others. It depends very much upon what our business or calling, is whether one faculty seems more valuable than another. The lawyer, for instance, makes more use of the reasoning organs than a carpenter or store-keeper does, and to him they are more important; while the carpenter's use of the perceptive organs may be greater than even the lawyer's and those in the side head that have a special relation to his business like Constructiveness, Ideality, Destructiveness, must be exercised daily by a good workman.

Language plays a very high part in our every-day life. It is the chief means of exchanging opinion, of letting our

wants and feelings be known to others. The eyes, movements, gestures, may show a great deal, but speech has powers far beyond dumb shows. The voice in its accent and inflection has a wide range of expression, and when united to culture and a warm temperament it is a wonderful instrument exerting almost boundless control.

The history of this organ is very interesting. Dr. Gall was led to its discovery when he was a mere boy. He had great trouble in committing his lessons to memory; the words would slip away



LORD CHURCHILL—LARGE LANGUAGE.

from him, and when he came to recite he found himself at a loss for the rules of the arithmetic and the phrases of the grammar. Other boys would be glib enough and yet not understand the lessons as well as he. After a while he thought he had discovered a cause for the difference, although he was not able to reason it out. He noticed that the boys who were so ready at repetitions had, as a rule large, prominent eyes; while he and others who couldn't so

easily get up and rattle off a lesson had smaller eyes and somewhat deep set. At college it was the same thing, he could not compete at recitation with the big-eyed fellows. And afterward when he was a student in medicine, he concluded that these full eyes had something in common with the brain. It must be that a part of the brain right back of or over the eye-socket contracted the socket and the eye-ball was in consequence pressed outwardly, and so a fullness, especially noticeable in the lower eyelid was caused. You will see this in the portrait of Lord Churchill, the young member of the English Parliament who has made himself so much talked about because of his activity and speeches on the side of the Tories. In the other portrait you will see as quickly that the eye sign of Language is by no means so large. Leopold, the King of the Belgians is said to be a good ruler, but he has no reputation as a talker.

It may seem a little strange to you that we must depend upon a condition of the eyes for our ability to tell about the size of Language, while the other organs on the chart have their signs in the cranium; yet good phrenologists think it one of the easiest organs to read. The organ lies in the under part of the brain two inches back from the brow; yet it is one of the best proven of the organs. The doctors who are learned in anatomy to-day generally agree that the faculty of Language has an organ in the brain where the phrenologists placed it long ago. Sometimes the brain becomes diseased in the "Island of Reil," which is named for a distinguished German anatomist, and is a part of the third or lowest convolution of the frontal region of the brain, and the effect is a disturbance of the invalid's speech. He forgets common words and can not use them in his talk; may jumble and mix up his language in a most funny way, and as the disease goes on and the brain substance is more and more destroyed, he loses the power to speak, until finally

he can not even show what he would say by signs. A great many cases of this speech disease, called Aphasia, are recorded, and their study has led to the finding out of many valuable facts in the structure and disease of the brain.

The excessive use of this organ is not an advantage to any one. The good Book gives us several bits of advice on the subject, and warns against letting our tongues run loose. "Silence is golden" says an old proverb, and we hear a great deal about the sagacity and influence of silent men. If we all could only speak to the point and when it was the time to speak how much annoyance



KING LEOPOLD, OF BELGIUM.

and trouble we would save ourselves and the world! Some people have been driven mad by too much tongue, and the poor man in the picture looks as if he were on the verge of insanity, under the lash of his wife's sharp talk. Perhaps though, he deserves what he is getting and is a lazy, unthrifty husband, while the poor wife has the care of the family resting on her shoulders, and only her limber tongue to defend her unhappy condition. The artist gives us a striking sketch. He has certainly drawn a strong

face for the scolding wife, and indicated a remarkable development of eyes and jaw. He has given to the man so large a head, so much fullness of brain that we can't help thinking of poor Socrates, the Athenian philosopher of old, and his very excitable companion, Zantippe. But Socrates could talk—when out of doors, teaching his pupils in the Academy; at home, however, it seems that he hadn't tongue enough for his wife.

You often notice the difference among people in their ways of speaking. Some

grape arbor that stands in the garden without a vine yet grown upon it. Then we meet those who are full of talk that is rich in adjectives and illustrations, and flashes with wit and striking epigrams; they are like an arbor over which the vine has grown and is at its highest summer maturity with leaf and tendril everywhere quite concealing its angular, wooden support. Some people talk by the book; having a good memory they put in the dictionary words thickly and seem to be very "well read."



A LOOSE TONGUE, OR GIVING HIM A PIECE OF HER MIND.

In spite of the best advantages of education are never easy and fluent; while others who have scarcely looked into a book will talk by the hour, and be very attractive as a story teller. The development of the Language centre is at the foundation of talking ability. The "gift of the gab" as some old-fashioned people call it is indeed a talent for the most part inherited. In society we meet with those who are very brief and we may say bare in their speech; they remind one of a

As a rule clear, direct speech and writing is best for the ordinary needs of life, and you should aim at that rather than to be showy and fine. Let me give you an illustration that is said to be true.

A young man of college education was employed on a newspaper as a reporter, and was given the job of "writing up" a fire that had occurred in the town, and this is what he handed to the editor thinking, no doubt, that it was something of a superior order:

“Our flourishing and prosperous young city was last evening the scene of the most disastrous conflagration it has yet witnessed. The devouring element first broke out in the mercantile establishment of Horner & Co., which magnificent edifice it consumed before its progress could be arrested in the slightest degree.

“Our knights of the hook and ladder responded nobly to the clangor of the alarm bell, and essayed manfully to combat the mighty element of flame and darkening smoke, but their utmost endeavors were unavailing in rescuing the building from the annihilating and incendiary flames, for there is incontrovertible testimony that the widespread conflagration was the immediate result of diabolical incendiarism. The perpetrators will yet be overtaken by the sure and keen arm of the law, whose majesty they have thus outraged and offended. The aggregated loss is in excess of four thousand dollars.”

When the paper came out, the new hand and the readers of the paper read the following :

“The dry-goods house of Horner & Co. was burned to the ground last night, the flames having made such headway before the alarm was given that the engine company arrived too late to do more than keep the fire from spreading to other buildings.

“It is thought that the building was set on fire. The loss is about four thousand dollars, partly covered by insurance.”

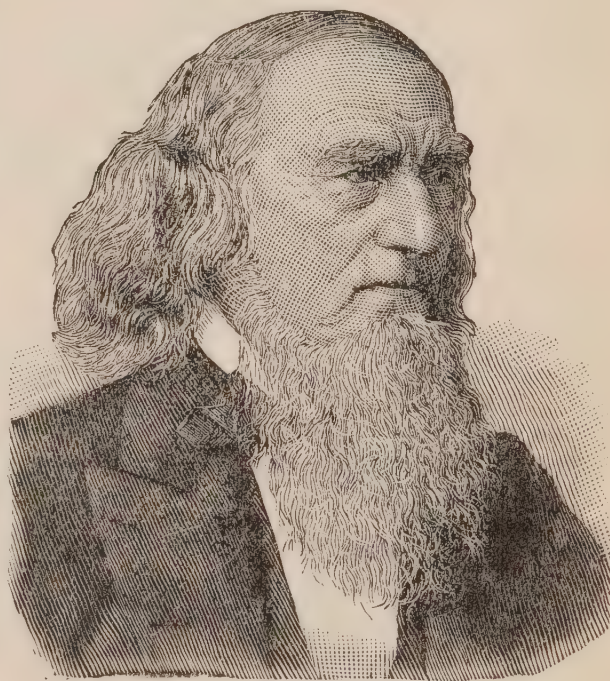
That is the way the experienced editor put it, and which do you consider the better description ?

People talk according to their class of development and culture. If the selfish nature is strong, Language is likely to work in that channel ; if the religious and moral, Language is soft, gentle and winning and relates to others ; while in the case of the selfish organs, if large, people are inclined to speak of themselves, their own affairs ; if the social elements are strong, we find people talking of love, children, home. With a buoyant, lively nature and large perceptive organs, if Language be large, people talk freely and readily on almost any subject and are generally agreeable.

WEIGHT.

How quickly you recognize the play in our next sketch ! What fun it is to get on a see-saw and go up and down ! “Let me be in the middle and balance you,” cries little Nellie.

She has a natural talent in that respect ; she can stand on one foot and then on the other, and keep the centre of gravity with ease. She can learn to skate and skim around with that grace which is so delightful in a good skater. She is not afraid of falling when she crosses a wide ditch on a single loose board, but her bigger sister Maria is, because she hasn't so much Weight in her head as Nellie. I have known the little witch to climb a tree and go out on



MR. H— LARGE WEIGHT.

the slender branches, fifteen or twenty feet from the ground and there swing away, laughing in great glee—as if it were “splendid” to be up so high and where the birds play.

The organ of Weight lies just over the eyebrow, near the inner angle formed by the root of the nose with the lower boundary of the forehead. It is very large in the portrait—Language, too, is very marked there. In walking and all movements we are required to use this faculty, and people who are unsteady

and awkward in manner usually lack in development of weight. Just examine the foreheads of those who excel in gymnastic feats—the rope dancers, of the old sailors who have gone aloft to reef topsails in many a hard gale and you

helped him to adjust himself to a crisis that would have flattened out most people. We thus see how one by one these little organs in the forehead play an important part in our common life.

EDITOR.



PLAYING AT SEE-SAW. "I'M BALANCED."

will find that their brows appear to hang down in the middle part over the eyes. A good mechanic, one who can swing a hammer or handle any tool with precision is strong in Weight, and a boy who wants to be a practical carpenter or blacksmith and hasn't good Weight would better try something else.

Not long ago I was walking down Broadway, when a gentleman, who was going the same way, slipped on the icy pavement. The movement was so sudden that I expected to see him fall, of course, but he did not. He went through a wonderful pantomime, however, twisting body and arms in various directions, and finally straightening up and resuming his tramp onward. Forty-nine out of fifty men would have gone down by such a slip; they could not have saved themselves. I looked at the man closely, he had very large Weight, and that

THE FOOLISH IDEA OF TOO MANY BOYS. — A Canada paper very properly speaks of a fallacious notion entertained by boys of the period in the following terms: Only one boy has responded to our advertised request for a competent lad to learn the printing business. If we had advertised for a boy to become a clerk, or read law, the applications would have been numerous. If the boys generally prefer continuously scanty pay and "gentility" to the acquisition of a good trade and comparative independence after the trade shall be learned, it is their privilege. But the fact implies a narrow-minded, false and pernicious notion that work at a skilled mechanic's vocation isn't nice enough, and that it is degrading. Men worth having in the world do not develop from boys who have this idea, or who are taught it at home.—*Ontario Messenger*.

A NEW DOCTRINE OF EVOLUTION.

PROFESSOR John Fiske has published a work of one hundred and nineteen pages, entitled "The Destiny of Man viewed in the Light of His Origin." This book is written in that clear and elegant style for which he is noted in former productions. He has heretofore been an ardent and rather bigoted follower of Darwin, and hence a firm believer in his theory of the origin of species by natural selection, resulting in the survival of the fittest. The title of the work therefore, naturally leads to the inference that he intended to speculate in reference to the advanced species destined to succeed man as his fittest survivor. Man being, theoretically, the fittest survivor of all the animal species from the lowest through a long series of connecting links, there would seem to be no sufficient reason why the process should stop, why some being should not be produced in advance of man. Such would seem to be the natural inference, and such was Darwin's belief so far as we can judge from his works.

But the reader will soon learn from a perusal of this interesting book that natural selection has finished its work as a physical creator—that it has ceased to be natural and become incorporeal; in other words it is to be distinguished hereafter in the advancement of *civilization*. He says: (p. 30) "When Humanity began to be evolved, an entirely new chapter in the history of the universe was opened. Henceforth the life of the nascent soul came to be first in importance, and the bodily life became subordinated to it. Henceforth it appeared that in this direction at least the process of Zoological change had come to an end, and a process of physiological change was to take its place. Henceforth along this supreme line of generation there was to be no further evolution of new species through physical variation, but through the accumulation of physical variations one particular species was to be indefi-

nitely perfected and varied to a totally different plane from that on which all life had hitherto existed. Henceforth, in short, the dominant aspect of evolution was to be not the genesis of species, but the progress of civilization.

The following in glowing terms is, it appears, to be the final consummation of this new theory:

"The future is lighted up for us with the radiant colors of hope. Strife and sorrow shall disappear. Peace and love shall reign supreme. The dream of the poets, the lesson of priest and prophet, the inspiration of the great musician is confirmed in the light of modern knowledge. And as we gird ourselves for the work of life, we may look to the time when in the truest sense the kingdoms of this World shall become the kingdoms of Christ, and He shall reign forever King of Kings and Lord of Lords" (118-19).

It is a little singular, to say the least, that the much controverted doctrine of a millenium should be thus revived and improved, as a product of selection.

It would seem as if Mr. Fiske intended to introduce a new theory as a successor to natural selection, and which perhaps, may be termed spiritual or moral selection, under the operation of which civilization is to advance beyond all former conceptions. He says: "Not the production of any higher, but the perfecting of humanity is to be the glorious consummation of nature's long and tedious work." The "whole of creation has been groaning and travailing together in order to bring forth that last consummate specimen of God's handiwork the human soul." (32).

Assuming, for the present, that the prevailing evolution theory is well founded, some conclusions will follow that do not well harmonize with these roseate millennial anticipations.

Man, according to Darwin, commenced diverging from the Catarrhine

monkey at a period as remote as the Eocene. The first departure from monkeyhood towards manhood was, as we are assured, scarcely perceptible and the change continued so gradual that some hundreds of thousands of years must have passed before the first man quite free of monkeyhood appeared; and the advance from that period to the present involves another long series of years. The question then becomes pertinent, what progress in all this vast length of time has man made towards civilization?

Civilization is defined to be—"the aggregate of the material and moral progress made and still making by man" (I. Cyclopaedia of Political Science).

Man, psychologically, is made up of a will and an understanding—the one being the seat of his affections and the other of his reasoning powers. By the former he loves and hates,—by the latter he reasons and forms conclusions. A highly civilized man is one who likes the good and dislikes the bad; and by his reasoning faculties, he masters the most difficult problems in science.

If the destiny of man is, as we are so confidently assured by Mr. Fiske, the survival of the fittest, he would ere this have made sufficient progress heavenward to furnish some proof of the truth of his civilization theory. So far as the human understanding is concerned there is some show for it, in the immense progress made in mastering the secrets of nature.

But look at the exhibition of the human will! A very large proportion of mankind have become adepts in the commission of crime from the lowest to those of the foulest character, and in the use of their reasoning faculties to escape detection and punishment.

To this the penal statutes of every nation in Christendom, and the proceedings of the police courts of every large city present abundant proof. If this be the progress towards human perfection during the lapse of the vast number of years from man's supposed emergence

from the monkey, we may well question the millennial fancies of Mr. Fiske.

Before building up a theory of Spiritual, as the successor of natural, selection, it seems no more than reasonable to require evidence stronger than any yet given, that man is really the evolutionary descendant of an ape or monkey. According to Darwin this descent commenced as far back as the Eocene and started from a low species of the Catarrhine monkey, long since extinct.

To show that this theory of man's descent is not sustained by any sufficient proof, it is only necessary to take into consideration the radical differences between the lowest man (*i. e.* Fuegians) and the present Catarrhine monkey, the comparison with the supposed extinct ancestor being impossible.

This monkey is a four footed animal. Its feet are furnished with claws fitted for climbing trees, on which it passes much of its time. Its fore legs are longer than its hind, and much longer than the arms of man; it is born with all the knowledge necessary for its existence, which we call instinct; like all animals below man, it has no articulate speech, but makes certain inarticulate vocal sounds or cries, which are essentially the same in all of the same species. Its body is covered with hair and it has a tail.

In support of his theory Darwin makes the following assumptions in regard to man.

"The early progenitors of man were no doubt once covered with hair, both sexes having beards, their ears were pointed and capable of movement and their bodies were provided with a tail" (I. Des. Man 168).

These are assumptions which this great author had to make in support of his theory, without the slightest evidence. There is not at present, nor has there been found within the historic period any of the various races of man possessing any of these peculiarities. Let us look at the distinctions in detail.

1. Having covered incipient man with hair as an inheritance from the Eocene monkey, and there being in these days no such specimens to be found, the next effort was to show how he became divested of it. To do this he cites instances of elephants and rhinoceroses being almost hairless, though certain species of each kind being in an arctic climate were covered with long wool or hair, and from this says, "May we not infer that man became divested of hair from having aboriginally inhabited some tropical land" (I. D. M. 143).

This reasoning is in direct conflict with the facts, that the Fuegians live in the cold regions of Terra Del Fuego, and the Esquimaux in the frozen regions of the North; and that there are hairy animals within the tropics.

He finally abandons this mode of accounting for the loss of hair, and alleges as a matter he is *inclined* to believe, that "man or rather primarily woman became divested of hair for ornamental purpose" (I D. M. 143); and the matter is thus simmered down to mere guess work, without a particle of evidence in its support. What proof is there that primeval woman acquired a taste for the beauty of nakedness? How could she form such taste without a specimen of human nakedness before her? And the most embarrassing question of all is, how did these æsthetic women get rid of the hair?

2. The disappearance of the tail from the human body is not attributed to female taste, and in fact is left in much doubt. It seems that certain of the monkey genera have only caudal rudiments, and why this should not be uniform no explanation is given. (I D. M. 144.)

3. The monkey is quadrupedal, its limbs are furnished with hands having long flat fingers, which fit it for climbing, and it is so far arboreal as to make its bed in trees.

Man is biped, with feet without claws, his arms only being prehensile. What

evidence has been furnished by Darwin, that the hind, long-fingered foot of the monkey has been changed into the human foot? What ground is there which makes such a change probable? None has been produced, nor can be.

4. The animal mind is made up of *instinct* which it possesses at birth, and is a *knowledge* of what is necessary for its subsistence and growth without tuition; and in addition, it has the capacity of learning certain things by experience, and these capacities are well illustrated by the domestic dog.

That there are certain knowledges acquired by the experience of the animal there can be no doubt; but these knowledges are limited by the limited capacity of the animal mind. There can be no doubt either that these knowledges becoming fixed by habit, are transmitted by heredity, and become instincts in the offspring, says Ribot: Instinct is innate, (*i.e.*) anterior to all individual experiences. Whereas intelligence is developed slowly by accumulated experience, instinct is perfect from the first (Heredity 14).

In sharp contrast with the infant monkey, the human infant is born in helpless ignorance, and would speedily perish, except for being placed at its mother's breast. It has the power of suction, as a continuation of the mechanical suction as a foetus. As it grows it slowly acquires knowledge by experience, and there is seemingly no end to such acquisition in after years. Reflex actions, about which so much is said, are those common acts which after a time are performed by habit without reflection, and are not akin to instinct.

5. Darwin conjectures that the first step in the formation of language may have been the imitation of the growl of a beast of prey by some wise ape-like animal to warn his fellow monkeys of a peculiarly impending danger; and he conjectures that this would be a first step in the formation of language. (I. D. M. 55).

But if language was formed in accordance with this idea, it would seem to follow that human language would be uniform in all the different human races. The language, however, of each of the various races of man is articulate, combined with a comparatively few emotional expressions. The language of the monkey (the Darwinian ancestor of man) is, and always has been inarticulate. If human speech became gradually articulate in the gradual advance from apehood to manhood, it would also seem to follow that the language of the various human races would be uniform.

In further reference to the formation of language, he says: "From these few and imperfect remarks, I conclude that the extremely complex and regular construction of many of the barbarous languages is no proof that they owe their origin to a special act of creation." (I. D. II. 60). But this great author assumes that life started in from one to five of the lowest living forms by creative power. Why then, could not man have been created by a similar in-flow of life, from the Creator, into ape forms (without male ape ancestry), with ability to express their emotions and thoughts by a combination of articulate and inarticulate speech?

There are probably as many as twelve different races of man, which may be accounted for by similar in-flows of life at different periods and in different varieties of the ape species; and this would account for the variety of different races and languages.

6 The life of a being puts on a physical body corresponding to its extent and capacity. The life of the ant puts on the ant body; that of the dog, the dog body; etc. Hence the body, made up of earthly materials is the eternal representation of the mind or soul in men and animals. As there can be no adequate effect without a cause, the human body could not have been produced without an adequate advance in the ape mind toward the human on the theory in question. But how

this fancied ape or monkey came to acquire the human attribute mentally, and its offspring to be clothed, physically, with a human or part human body, is a point not elucidated by Darwin or any of his followers.

The following sentence in the "Destiny of Man" to wit: "In its lowly beginnings the psychical life was merely an appendage of the life of the body," (63), would seem to indicate that Mr. Fiske believed in two different kinds of human life—the one of the soul and the other of the body!

7. In Chapter II. (I. D. M. 34) Darwin says "My object in this chapter is solely to show that there is no fundamental difference between man and the higher mammals in their mental faculties." To say that there is no fundamental difference is equivalent to saying there is no essential difference. In this it would seem that this eminent theorist had overlooked the fact that the primeval knowledge of the mammals in question is instinctive. It is true, they can learn by experience to avoid danger; so too, they can be taught to do certain things, as is familiarly exemplified in horses and dogs. But the idea that any animal can, human like, reason and draw conclusions on abstract and scientific subjects is manifestly absurd.

It would seem to be a matter fully settled, that there is a department in the structure of the human mind entirely above and distinct from any existing in the highest animal mind.

The brain is generally regarded as the physical seat of the mind, and the size of it, in comparing one race of man with another is, on the whole, the measure of mental power in each race. The largest brained are those which make the greatest advances in power and civilization. We have only to measure the great difference between the brain of the lowest of the human races and that of the highest monkey, to show the utter improbability of man's monkey descent. Darwin himself appears to have been aware of a

difficulty in this respect. He admits that the difference in mental power between the lowest savages and the most highly organized ape is enormous, and would still remain immense, even if one of the higher apes had been improved or civilized as much as a dog has been civilized, in comparison with its parent form, the wolf or jackal. He became acquainted with three Fuegians who lived some time in England, and was surprised to find how much in disposition and mental faculties they resembled the English people. (I. D. M. 33-34).

Further light is thrown upon the question of comparative brain size, by the discovery of various fossil remains of men. On this subject it is sufficient to refer to Huxley's work on "Man's Place in Nature." He examined fossilized human skulls and in reference to the Neanderthal, one of the lowest says: "In no sense can the Neanderthal bones be regarded as the remains of a human being intermediate between men and apes" (181-82). Of the Englis skull after noticing how far it resembles some Australian skulls, he says: "On the other hand, its measurements agree equally well with those of some European skulls. And assuredly there is no mark of degradation about any part of its structure. It is, in fact, a fair average human skull which might have belonged to a philosopher, or might have contained the thoughtless brains of a savage." (181).

It thus appears that there are, at least, seven important points between men and apes, forming so many missing links, not one of which has been reasonably accounted for. Mr. Darwin, conscious that his theory must fail, unless he could prove that man was a product of natural selection, has in his "Descent of Man" devoted two volumes to the subject. They are written in his remarkably pleasant style, but it is safe to say that he has not proved a single material fact which establishes this important branch of his theory.

George J. Romanes, in an article pub-

lished in the Humboldt Library (No. 40, p. 157), undertakes to present the scientific evidences of the Darwinian theory of evolution. It is sufficient to notice that part of the article relating to the rudimentary organs of whales and porpoises. Taking whales as the example of his mode of reasoning, and assuming a derivation from a land animal, he states that "the hind legs have ceased to be apparent externally and are only represented internally by remnants so rudimentary that it is impossible to make out with certainty the homologies of the bones"; that "the arm which is used as a fin still retains the bones of the shoulder, forearm, wrist and fingers, although they are all inclosed in a fin-shaped sack, so as to render them quite useless for any other purpose than swimming," that "the head of a fish in shape still retains the bones of the mammalian skull in their proper anatomical relation to one another, but modified in form so as to offer the least possible amount of resistance to water."

He concludes from these data, that the progenitors of these animals must have been "terrestrial quadrupeds of some kind which became aquatic in their habits." In other words, that certain land animals by some means becoming immersed in the ocean past recovery, became aquatic and their limbs thus became reduced to rudiments. This kind of reasoning does not appear to rest on any probable basis. The land animals of the character represented having been in some way cast into the ocean, would either drown or regain their former position upon the land.

But it may be asked, how account for the rudiments in question? This may be found in the order of creation. Evidently life commenced in the waters prior to the appearance of land and proceeded in regular gradation from the most simple to forms more complex, as in the case of whales, with rudiments for the creation of land quadrupeds. Creation is not by chance or accident, but flows from the

Creator into prior forms. Otherwise we must come to the conclusion that *nature* possesses the power of designing the things to be created.

tal characteristics of the whale came from a land animal becoming aquatic involves a reversal of creative order.

B. G. FERRIS.

The idea, therefore, that the rudimen-

THE SERVO-BULGARIAN STRUGGLE.

WHETHER not, to alter Scott's lines a little :

The war that for a space
doth fail,
Will doubly thundering swell
the gale—

we can not positively say, but certain it is that the two principalities of Servia

Bulgaria, supposed by looker-ons to be much the weaker of the two contestants, developed a surprising amount of military capability and routed the Servians in a most shameful fashion when the latter after a course of splendid successes were apparently on the eve of crushing out what remained of national life to the

Bulgarian people.

The contest of these two Danubian states, in itself small, would attract little attention were it not for the interest that great powers like Russia, and Austria have in it, and the more essential interest of Turkey who has been gradually losing her possessions on the European side of the Baltic. Before the last war with Russia, which closed with the treaty of San Stefano in 1878, the dominions of Turkey extended to the Danube, but the terms of that treaty somewhat reduced the Sultan's territory, for it was agreed then that Bulgaria and Eastern Roumelia were to form one independent State under its own ruler, and with the name of Bulgaria. As the new State was well understood to be subject to Russian control, this division was unsatisfactory to the other large Powers, and again was greatly opposed by Turkish provinces, and also by Servia, Macedonia and Greece,

who objected to being overshadowed in size and influence.

Taking a concise statement of the cause of this war in the East, which appeared



MAP OF SOUTH-EASTERN EUROPE.

and Bulgaria having come into sanguinary contact are not more disposed now than they were six months ago to be on friendly terms. Prince Alexander of

in one of our exchanges, as appropriate in this place, we give also a map of South-eastern Europe, to show the relative situation of the contending states. The irritation over the San Stefano treaty increasing, the Powers of Europe agreed to the Conference of Berlin that



PRINCE ALEXANDER, OF BULGARIA.

sat in 1878, and whose result was a compromise by which the Bulgaria of the San Stefano treaty was divided by the Balkan Mountains into two separate States. The part north of the Balkans, Bulgaria, was to remain an independent State. The Congress appointed a German Prince, Alexander of Battenberg, as its ruler. The part south of the Balkans was to be a separate State called Eastern Roumelia, dependent on the Sultan of Turkey, who had the appointing of its Governor. This compromise apparently pacified all the parties, although the appointment of Alexander as ruler of Bulgaria was not liked by the Czar, as he was not favorable to Russian ideas. This, was the general situation when the (East) Roumelians revolted from Turkish rule and joined the standard of Prince Alexander of Bulgaria. For-

merly Russia had desired the union of Bulgaria and Eastern Roumelia, but when the union was effected under Prince Alexander, it was not so agreeable. The Servian Government claimed that if the Berlin treaty were annulled it had a right to that part of Roumelia which was taken from her in the previous arrangement, while Macedonia and Greece claimed each a slice. Servia declared war against Bulgaria, as we know, and precipitated herself into the present embarrassing condition. Alexander applied to Turkey for assistance, but the Porte refused it until all troops should be withdrawn from the Roumelian frontier. This demand was complied with, but the Porte did not give any help even then. Alexander also appealed to the Powers, claiming that Servia was acting against all international law and equity.

The unexpected success of the Bulgarians in beating back the Servians forced a serious issue, Russia and Austria taking decidedly hostile attitudes,



PRINCE MILAN, OF SERBIA.

and here again a conference of the Powers was called to settle matters amicably if possible, and the result of it was

the decision that affairs must be returned to the situation in which they were before the war. Since then there has been more or less discontented expression, with the puppets in the melee, Servia and Bulgaria, glaring at each other like two game cocks held back by their masters.

Alexander of Bulgaria is twenty-nine years of age, tall, of fine figure and strikingly handsome, and at the royal wedding of Beatrice, where he acted as best man to his brother, with a huge barbarian attendant in petticoat and skins beside him, was the observed of every eye. He is the second son of Prince Alexander of Hesse, brother of the late Empress of Russia. His mother was born Countess Von Haucke and was the daughter of a former Polish Minister of War, but she was created Princess of Battenberg on her marriage. His elder brother, Louis, is an officer of the British navy, and his younger, Henry, as we already know, is the latest addition to the family of Victoria. Alexander was originally an officer in the Prussian service, but joined the Russians and served gallantly through the Russo-Turkish war. In 1883 he won the hearts of the Bulgarians, who supported him heart and soul, by demanding of Russia why the Bulgarians should not have a home Minister of their own instead of having to

submit to the dictation of a foreign official, and compelled her to recall her Ministers and replace them by popular men.

Of course his success against the Servians has greatly increased his popularity with the people over whom he governs.

Milan Obrenovitch IV. was proclaimed Prince of Servia July 28th, 1868, and attained the kingly prerogative in March, 1882. He has proved himself in the main a wise ruler, carefully guarding the interests of his people and vigorously maintaining his territorial rights, and it may be, that he will yet prove himself a successful administrator of affairs by securing his ends. He has the appearance of a decided, plucky man, with fewer of the genial and mellow elements than are indicated in the portrait of Prince Alexander. He is not likely to own defeat unless pretty thoroughly whipped. He has ambition and force, and a high temper. The Bulgarian ruler has a strong will but also a good degree of Cautiousness that leads him to be guarded and prudent, and to keep as nearly as possible on the safe side. He is more likely than his Servian opponent to keep close to the letter of the mandate of the great arbiters of the questions that concern the peace of Europe, while trying to maintain a dignified attitude.

PHRENO-MESMERISM.

Perhaps, of all the mesmeric phenomena, the most generally interesting to witness are those elicited in what is called Phreno-mesmerism, i.e., the power of the mesmeriser to excite the different phrenological organs of the sensitive.

The experiments, when successful, go far to prove the truth of Phrenology, as well as the abnormal state of the patient. An uneducated man, for instance, may, for the first time in his life, be thrown into the mesmeric, sleep-waking state, and the operators, by touching, and

sometimes even by merely pointing at the organ, say of Benevolence, may cause the sensitive to exhibit marked signs of that particular sentiment, so that he may appear to fancy or dream that he sees some pitiable object, which at once awakens his interest and compassion. If Combativeness be touched, he will immediately show symptoms of anger, fancy he is quarreling with some one, evince a desire to fight, and may even strike his mesmeriser; fan or blow over the excited organ, or touch Benevolence,

and his anger immediately subsides. Should Combativeness and Destructiveness be very small, the excitement of these organs will often lead him to imagine that some one is trying to quarrel with him.

On the organ of Veneration being touched the sensitive will clasp his hands together, and kneel down in the attitude of prayer, the expression of devotion on his countenance so beautifully depicted that the observer is forced to acknowledge that the patient is either in an abnormal state, or that he is one of the finest actors he has ever seen. If Veneration and Tune be touched at the same time the sensitive will probably sing a hymn; touch Mirthfulness and Tune only and you may have a comic song. Touch Philoprogenitiveness and the sleeper will probably imagine he is caressing a child, touch Combativeness at the same time, and he will appear as if clasping the child with one arm while with the other he will strike out as if defending the little one from injury. Take away the finger from Philoprogenitiveness and he will probably act as if he were dashing the supposed child to the ground. Excite Acquisitiveness and the sensitive will probably take any object, he can reach, from the bystanders, then touch Conscientiousness or even Benevolence and he will show signs of contrition for his conduct, and hasten to restore the stolen articles to their respective owners, and so on with many other organs, the manifestation being sometimes faint and sometimes strong, according to the idiosyncracies of the sensitive; with some, only a few of the organs respond, with others the experiments completely fail. The most interesting results in these experiments takes place when two or more of the organs are simultaneously excited, when you will probably observe such beautiful combinations of graceful attitudes and facial expression as would be well worthy the observation and study of a first-rate actor. That these experiments tend to

prove the truth of Phrenology is almost certain, but after many experiments on different sensitives I am led to believe that in some cases the excitement of the different faculties, sentiments and propensities may be attributed to the power of the mesmerist's will, which so often plays a part in the production of many other mesmeric phenomena. Here I may observe, that when I use the word Will, I have in my mind the often proved subjection of a sensitive to the thoughts or minds of those *en rapport* with him, so that he then unconsciously obeys the will or wishes of his mesmeriser, and it may be that the mesmeriser's thoughts produce in the sensitive a state of suggestive dreaming, which leads him to carry out in pantomime the unuttered suggestions of his mesmeriser.

I once had a patient whose phrenological organs would at once respond, when I merely pointed at them, so instantaneously, and so marked were the effects that at last I began to suspect my constant success. It occurred to me that it was very remarkable that I never made a mistake as to the exact locality of an organ, although at that time quite a novice in the study of Phrenology—a plaster-of-paris head, marked with the different faculties, being my principal guide. These suspicions led me to try the following experiment, which was carried out with the assistance of a friend, who was interested in the subject. We agreed that my coadjutor should mark down on a piece of paper a list of the principal organs and that he should first indicate the name of an organ for me to point at and then another organ for me to excite by the will. In this case the sensitive was not only ignorant of Phrenology but her eyes were always bandaged. After I had placed the patient in the sleep-waking state, my friend desired me to point at Benevolence and to will combativeness. I did so. Strong signs of anger and repulsion were immediately exhibited, and so on with several other organs, my will proving

more powerful than the pointing with my finger. Great, however, would have been my mistake had I hastily concluded from these experiments that all the manifestations in Phreno-mesmerism are due to thought-reading or will-power.

Numerous experiments of my own and of others to whom I related the above case, particularly some very interesting facts communicated to me by Mr. Vernon then editor of *The People's Phrenological Journal*, most satisfactorily proved that the organs can be excited in cases where it appears impossible that the will can have anything to do with the results. It appears to me that both hypotheses may be true, the power of the will on some occasions, and the power of exciting the organs without any exertion of the will in others, in the same way that in clairvoyance, though mind-reading frequently plays a part, it also frequently has nothing to do with the production of the phenomena.

Here occurs to me the recollection of a rather curious experiment tried on one of my own sensitives. One day I was mesmerising one of my servants, a country girl, who, I need scarcely say, had never studied Phrenology. A lady was seated next to her and I touched the sensitive's head on the right side, on the spot marked by phrenological writers as the organ of Adhesiveness. The girl immediately clasped the lady's hand in her own right hand, struck out violently with her left hand; and showed by signs very strong attachment to her. I then touched with the fore-finger of my other hand the organ of Combative-ness, on the left side of her head, without withdrawing my finger from the the organ of Adhesiveness, and the result was very remarkable. The sensitive still holding the lady's hand in her own right hand, struck out violently with her left hand, the right side of her face wore a most amiable expression while the left side was distorted with anger. Any one who has seen the pic-

ture of David Garrick standing between tragedy and comedy, may imagine the effect produced in this case, where each side of the face exhibited the play of a different passion. Perhaps, according to the law of reflex action, the sensitive ought to have struck out with her right hand, and the other manifestations have been reversed, but the girl was no physiologist. When the famous case of the amputation of a leg at Wellow during the mesmeric sleep was read at the Royal Medical and Chirurgical Society of London, Dr. Marshall Hall considered the case to be one of imposture, because the poor man's sound leg did not start or contract when the diseased one was cut *i.e.*, did not "enact the reflex motion." Unfortunately for the interests of science, Dr. Marshall Hall had neglected to inform himself, by repeated experiments as to whether a human being during the mesmeric sleep, and a horse struck on the head with a pole-axe, are in precisely the same condition.

This same patient, on another occasion, had the organ of Imitation touched. A lady *en rapport* with her spoke a long sentence in German, which the girl repeated without making a mistake, and, I was assured by the lady, with good pronunciation. Dr. Braid, in his work on *Hypnotism* mentions that two of his patients, country girls, on the organ of Imitation being touched, spoke five languages correctly. I presume it is meant that they repeated the words after hearing some one recite them; but that was an extraordinary feat, as any one may judge by trying the experiment even on an educated person wide awake, provided he be not a good linguist.

I was once asked to mesmerise the servant of a friend, for the purpose of rendering her insensible to pain, previous to having a double-tooth extracted during the sleep. I succeeded in producing the desired effect and the operation was performed. On the in-

strument being placed in her mouth, as soon as the cold metal touched her gums, there was a slight quiver of one of the muscles of the face, but when the wrench was made and during the extraction of the tooth, the patient showed no more signs of feeling than if she had been a stone. The patient during her sleep, after the phrenological organs had been excited, always imagined that I was her fellow-servant, who happened to be an elderly negro from Jamaica, and as the *seances* always took place in the presence of her mistress and another member of the family, I was obliged to be constantly on the watch to prevent the somniloquist from betraying all the secrets of the pantry and kitchen.

During the ordinary mesmeric sleep the patient generally recognizes his mesmeriser, but as soon as the organs are excited a state of dreaming ensues, then he will often take his mesmeriser for some other person, perhaps for some intimate friend, and by a few suggestive words he may be led to fancy that he is conversing with any individual the operator may suggest. Of course the most decided and convincing cases as evidence of the truth of Phrenology are those where the mesmeriser himself, as well as his patient, has no knowledge of even the localities of the several organs. In such circumstances, should the mesmeriser, for instance, touch the organ of Cautiousness, and the sensitive immediately exhibit strong symptoms of terror, we may be pretty certain that the result is quite independent of will or of mind-reading. One of the most interesting effects of the excitement of the phrenological organs is to be observed in the various and rapid changes of expression exhibited in the patients countenance and attitudes as the different organs are touched, when the play of the different passions is depicted with such marvelous accuracy, that those who are totally unacquainted with Phrenology can easily perceive the nature of the sensitive's dream.

The very finest display of this phenomenon that I ever witnessed was in the case of Mr. Atkinson's patient, Anne Vials, recorded in the Rev. G. Sandley's work *Mesmerism and its Opponents*. I remember seeing a well-known actress studying the expression and attitudes of that poor, one-armed factory girl with as much interest and attention as she could have bestowed on a Siddons or a Pasta. Noticing one of these *seances* Mr. Sandley says:—"In fact I can not describe the effect better than by adding, that one of the spectators, a poet whose name on matters of taste is of the very highest authority, after witnessing the scene walked from the house down several streets preserving the most profound silence, his companion inquired; "Of what are you thinking?" "Thinking"—he answered, "of what could I be thinking, than of what groveling creatures we are, while that poor girl seems a creature of another world!"

An experienced phrenologist and mesmeriser wrote to me many years ago, as follows, by way of proving that the will did not act in his experiments:—"I send you something new. Get some one to entrance your patient, you then excite the organs of the mesmeriser, and you will get the usual effects exhibited in double force by the sensitive the mesmeriser holding his hand. Or, mesmerise the patient yourself, form a chain of a dozen or more persons, you hold the patient's hand, and turn your back upon the last person of the chain. Let any one touch the organs of the last person, and the same results will follow. Where is the will here?" This experiment, however, in my opinion is not quite conclusive, for if the person manipulating the phrenological organs of the last person be able to transmit any influence at all through a chain of twelve persons why should not his will be thus transmitted.

Mr. Braid, a surgeon practicing in Manchester many years ago wrote a work on *Hypnotism, or Nervous Sleep*,

in which he narrates a case of Phreno-mesmerism, so extremely curious and interesting that I venture to insert it. He says :—"I was informed that a child, five years and a half old, who had been present when I exhibited some experiments, had proposed to operate upon her nurse. The nurse had no objection to indulging the child, never suspecting any effect could take place. However, it appeared that she speedily closed her eyes, when the child, imitating what she had seen me do, placed a finger on her forehead and asked what she would like, the patient answered, "To dance." On trying another point the answer was "To sing," and the two had a song together, after which the juvenile experimenter roused the patient by the same method she had seen me use. The circumstance being related to me, I felt curious to ascertain whether there might not be some mistake, as there had been no third party present, and I depended entirely on the statement of the child, which induced me when visiting the family next day to request permission to test the patient. This was readily granted, and to my astonishment, she manifested the phenomena in a degree far beyond any case I had tried, indeed she did so with a degree of perfection which baffles description. However frequently she was tried, the same expression of countenance, the same condition of the respiration, and similar postures of the body, have been evinced when the same points were touched. Indeed so highly susceptible was she that after a few trials, when I pointed a finger or glass rod over the part, without contact, similar manifestations resulted."

This case of Mr. Braid's is of double interest, first of all, as proving that even a young child can mesmerise, and second, that a child can excite the phrenological organs. Perhaps this is one of the best proofs we can have of the truth of Phrenology. It is not to be supposed, however, that good cases of Phreno-mesmerism are by any means common ;

some mesmerisers are more fortunate than others in finding patients who exhibit the higher phenomena, the great majority only succeed in producing the sleep. During the state induced by Mr. Braid's process, and which he calls the "Hypnotic state," it would appear that the phrenological organs are more sensitive than they are during the mesmeric sleep which would account for his remarkable success. In all my practice, extending over several years, I have only had two cases of clairvoyance and about half a dozen cases where the phenomena of Phreno-mesmerism were remarkably distinct.

In the first chapter of the book I alluded to the common error of devoting too much attention to what is called the higher phenomena of mesmerism, at the sacrifice of its more legitimate uses as a curative agent, but I must except the practice of Phreno-mesmerism, for it is evident that, in judicious hands, the power of exciting the phrenological organs promises vast benefits, both mental and physical. Dr. Elliotson, the late Dr. Davey of "Hanwell Asylum," and other practical men, have recorded the opinion that much benefit might be derived from the use of Phreno-mesmerism in certain forms of mania, and in the correction of many morbid habits, for impressions made during sleep-waking may undoubtedly be carried into the normal or waking state.

To do justice to the subject of Phreno-mesmerism would require great experience in mesmerism and a considerable knowledge of Phrenology and Physiology. I can only lay claim to a certain amount of the first requisite, and should be truly glad if some one more competent for the task would fully treat on the subject in a future work.*

*From "Mesmerism ;" with hints for beginners. By John James—formerly captain in the nineteenth light Infantry, Great Britain.—W. H. Harrison, Great Russel Street, London.

As turning the logs will make a dull fire burn, so change of studies revive a dull brain.

TO ARMS.

Life is passing,
Cease from weak complaint and sad Alas-
ing!

Rouse thee, comrade, while the day yet
lingers!

Straight in front thy unbeaten foes are mass-
ing—

Clinch thy battle-piece with firm, strong
fingers—

Strike for victory while the day yet lingers.

Leave forever,
Vain regret for spent and lost endeavor.
Only with to-day canst thou have dealing,
From the past thy thought and longing sever;
In oblivion sink thy wounded feeling,
With to-day have earnest, honest dealing.

Swiftly flowing,
Silent and unseen thy life is going.
What is done thou quickly must be doing,—
Scant the harvest if too late the sowing;
Lost the race in faltering, faint pursuing,—
Fail not, but with courage speed thy doing!

No retreating,
Keep in step while life's grand march is
beating;

Noble movement breeds a grace immortal;
Time is not of purpose the defeating.

Leave no power unused, and at death's por-
tal

Find thyself a youth with hope immortal!

A. L. M.

THE CHRISTIAN RELIGION—ITS HISTORY AND DIVISIONS.

WHEN, how or by whom Christi-
anity was introduced into Brit-
ain it is impossible to tell. Some say
that Paul preached there between the
times of his first and second imprison-
ment in Rome, and Tertullian who
lived in the Second Century positively
announced that at the time in which he
wrote there were Christianized places in
Britain in which the Romans were not
allowed to establish themselves. It is
perhaps reasonable to suppose that
among the Roman armies of conquest,
beginning with that of Claudius A. D. 43,
there were Christians who scattered
the seeds of their faith that took root
and flourished to such extent that when
the country was abandoned by the Ro-
mans in the Fifth century, Christianity
was fully established among the Britons.

As early as 314, the Church seems to
have been well organized and divided
into three sections over each of which
was an Archbishop whose see was at
London, York, and St. Davids in Wales,
then called Caerleon, and who attend-
ed the Council of Arles held in that year.

We have little information as to how
far the doctrines of the British Church
agreed with those of Rome, but there
were certainly some differences. We
find Pelagius, a British monk, born

about 370, opposing the doctrine of orig-
inal sin, and the consequent necessity of
divine grace to enlighten the under-
standing and purify the heart, and his
views were held to such extent that Ger-
manus and Lupus visited the island to
prevent if possible the further spread of
such heresy.

About this time the Saxons and others
from the Continent, who had at first
been friends with the Britons, joined the
Picts in war against them and succeeded
in conquering the greater part of the
country. The consequence was, the es-
tablishment of the heathen doctrines and
practices of the conquerors to the almost
entire extinction of Christianity in the
sections they occupied; but Wales,
Cornwall and parts of Scotland still held
to the faith.

When in the latter part of the Sixth
century Augustine, sent by Gregory,
then bishop of Rome, as a missionary to
Britain, arrived with his companions,
some forty monks, they were gladly
welcomed by Bertha, wife of Ethelbert,
King of Kent. She was a French prin-
cess and had been educated as a Chris-
tian, and it was one of the conditions of
her marriage that she should be allowed
to hold and make free profession of her
religious principles. Ethelbert who was

considerably under his wife's influence, gave the missionaries a residence in Canterbury with full license to preach their doctrines, which he finally accepted. St. Augustine took at Canterbury a church formerly occupied by earlier Christians, and there established his seat as Archbishop, and since that time the Archbishop of Canterbury has been the primate, outranking all other bishops in the kingdom.

When it became known that Christianity had the approval and protection of the King, it was found that many who had previously professed it had remained silent, through fear. These now added their influence and soon the country so long in darkness was again reckoned as a Christian country, and as such it has since remained.

The work of Augustine was followed by the establishment of Monastic houses that acknowledged no ecclesiastical authority other than that of Rome—and whose work among the people served to bring them to accept the supremacy of the Pope. Augustine, desiring to have such supremacy universally acknowledged, held a council with the bishops of the British Church, in which this and other questions were freely discussed. They declined to admit they were in any respect subject to the control of the Pope, and insisted on differing with the Church of Rome on several questions of faith and practice. At this time and for long after, the British Church retained its independent position, and it was not until the Tenth Century that conformity with Rome can be said to have been fully established.

St. Dunstan, a very able man, who had been elevated to the primacy, and was in favor with the King, in fact ruled both Church and State in England, exerted all his power in asserting and maintaining papal supremacy, and although it was not admitted by all, those opposing it, from policy, kept quiet.

This was the condition of affairs at the time of the Norman Conquest, in 1066.

William the Conqueror was an adherent of the Roman Church, but when he became King of England he determined to be master in every thing, and made his own rules relative to Ecclesiastical jurisdiction, and declined to render homage to Hildebrand (Pope Gregory VII.) for his kingdom, while in all matters of a spiritual nature he acknowledged his supremacy.

From this time until the beginning of the work that led to the Reformation, there were no especial changes. The religious establishments increased and the influence of the clergy grew proportionally, but the discipline was lax, and the morals of the clergy, and especially of the monks, were such as to meet the disapproval of the better class of society. This led to opposition and soon there were many who were outspoken regarding the growing evils. Among these were Wycliffe, who denounced mendicancy, and held the authority of the King over persons and property in his realm to be paramount to both the secular and spiritual jurisdiction of the Pope. By his advice King John refused to pay vassalage to the Pope, as he had previously done.

It remained for Henry VIII. to completely set aside the Pope's supremacy in England, and this he did while remaining otherwise in full communion with the Church. While denouncing his claim for independence the Pope complimented him for his loyalty to his religion, and for a paper written against the teachings of Luther gave him the title of "Defender of the Faith," which still pertains to his successor on the throne.

But this good feeling between King and Pope was not to last. The King desired his marriage with Catherine to be declared void; the Pope refused to do it. The King appealed to the bishops and clergy of England, and by their favor Cranmer, Archbishop of Canterbury, declared against Catherine, and held the marriage of Henry and Anne Boleyn to be good and lawful. The Pope threat-

ened Henry with the heaviest penalties he could inflict unless he retracted, but Henry refused and took immediate steps to constitute himself head of the Church in England, to whom and to none other the clergy should pay homage, and they, accepting the situation, in convocation held in 1531, acknowledged him to be "the one protector of the English Church, its only and supreme lord, and as far as might be by the law of Christ, its supreme head."

But it was not the desire of Henry to change the doctrines or general ceremonies of the Roman Church, and the effects of the teachers of Reformation were little seen until the short reign of his young son Edward VI. The government was then controlled to a great degree by Protestants, and one of their first acts was to widen, if possible, the distance between the Church in England and that in Rome. Preaching that had been discouraged, was now commended, and it was ordered that at least four sermons against papacy should be preached in every church each year. Images were abolished, and a copy of the Bible, in English, was placed in every church for the use of the people. The use of the book of Common Prayer, compiled by Cranmer, Ridley and their assistants, mostly from the missals of the Roman Church, was enjoined, the celibacy of the clergy was abolished, and the Church of England was established to pass through many trials and adversities, but to rise above them all and become what it is at the present time.

The church is also known as the Anglo-Catholic Church, the Anglican Church, and with us as the Protestant Episcopal Church.

The doctrines of the Anglican Church are comprehended in what are known as the "Articles of Religion," more commonly called the Thirty-nine Articles, and may be summarized as a belief in the trinity of persons in the Godhead, and consequently the Deity of Christ; his sacrifice, "not only for original guilt,

but also for the actual sins of men;" in the Holy Ghost as proceeding from both the Father and the Son; in the statements of the Nicene and Apostles creed; in original or birth sin, from or by the action of which every person born into this world deserveth God's wrath or damnation; that man has no power in himself to do good works, and can only do such through the grace of God working in him; that there is no justification except by faith; that the evidences of such faith are good works done after justification; that Christ alone was without sin; that after receiving the Holy Ghost one can fall into sin and by grace arise again; that from the beginning some were chosen and elected to attain everlasting felicity, and that none can be saved only through the name of Jesus Christ; that the Church hath power to decree rites and ceremonies, and is authority in controversies of faith; that "the Romish doctrines concerning Purgatory, Pardons, Worshiping and Adoration, as well of images as of relics, and also invocation of saints, has no warranty in Scripture;" that none may preach or administer the sacraments that are not lawfully called and sent by men having authority to so call and send them; that there are but two sacraments, Baptism and the Lord's Supper; that these do not lose their efficacy when administered by unworthy ministers; that baptism of infants is commendable; that in the Sacrament of the Lord's Supper the substance of the bread and wine is not changed, but the body of Christ is eaten only after a heavenly and spiritual manner; that the clergy are not by God's law commanded to abstain from marriage; that it is not necessary for ceremonies of the Church to be in all places alike, and every church has authority to change or abolish such as are ordained only by man's authority, and that the power of the civil magistrate extends to clergy as well as to laity.

These are the principal points of belief taught by the Church, both in Great

Britain and America, and it will be readily seen that on many questions there may be honestly much difference of opinion by those who still remain within the limits of the articles. A belief in the Trinity of the Godhead, and of the five points of Calvinism are indispensable; otherwise all may hold their own opinions. Hence we see such diversities in customs and beliefs at the present time. There is the High Church, with its forms and ceremonies closely approaching those of the Roman Church; the Broad Church with its latitude for belief, and the Low Church in a measure ignoring forms and adhering closely to the text of the articles.

So we find one preacher teaches of the inspiration of the Bible in one way, and the next in another. One believes in the efficacy of confession to the clergy, another thinks to God only should private confessions be made; the prayer book in use in England has a clause permitting, if not advocating, confessionals; that in America is silent on the subject. In short the adherents of the Anglican Church have more latitude as to beliefs and actions than those of other Protestant denominations, Universalists and Unitarians alone accepted, but all agree in the use of the "Book of Common Prayer" in their services. This was first compiled in 1549, it was revised in 1552, which revision was known as the Second Prayer Book of Edward VI. Afterward various changes were made, and in 1662, during the reign of James I., a new revision was made and authorized, differing but little from the one now used in Great Britain and most of her colonies. "But when in the course of Divine Providence these American States became independent with respect to civil government, their ecclesiastical independence was necessarily included, "and a revision of the Prayer Book became necessary, but few changes were made that were not compelled by the relation of the Church to the government. A further revision has often been suggested,

but fears of great difference of opinion as to what the revision should be, and where it should stop have induced the majority to conclude to let well enough alone, and although they know that none, or very few, give assent to all that is therein contained (the Athanasian Creed, for instance), it is thought best to leave these few blemishes in a book that is otherwise without parallel, rather than open the door for changes that are not improvements, and innovations suggested by those supremely wise in their own conceit, but whose wisdom is not apparent to others.

In England the King is the head of the Church, but this headship has become almost nominal. Next in clerical rank are the Archbishops, an office unknown in America. Each archbishop performs the duties of a bishop in his own diocese and is the Metropolitan or overseeing bishop over all bishops in his province. The Archbishop of Canterbury is highest in rank. Bishops, with few exceptions, are peers of the realm and have seats in the House of Lords.

We have not in this country, as in England, a cathedral system in which the officiating clergy of the cathedral are called Canons, and the superior one, Dean. Deans are appointed by the Crown, and are under the supervision of the bishop of the diocese. There is but one Protestant church building in this country known as a cathedral, that is at Garden City, in the diocese of Long Island, and has not as yet its dean and canons.

The government of the Church in the United States is through conventions, organized in each diocese, consisting of the bishops and other clergy, and of lay delegates chosen by the laymen. There is also a general convention that meets once in three years, consisting of all the bishops and four clerical and four lay delegates from each diocese. They sit in two houses, a concurrence of which is necessary for the passage of any measure. The support of the Church is

through voluntary contributions, made in different ways, each church providing for its own expenses, thus differing from the Church in England, where support comes from revenues or tithes from certain landed property. In the olden time much land was held by monasteries, and when these were discontinued these lands subject to tithings passed into the possession or under the direction of various parties including the Crown, some colleges, cathedrals, bishops, nobility and gentry. The incomes or revenues of such lands, now more generally paid in money than as in olden time in products, called livings or benefices, are paid over to the incumbent of the parish church, who is appointed by the holder of the living. Of these livings there are about 13,000 in England and Wales, some of which pay a very large income, while others only enough to support barely the recipient. In some instances parishes

have, by endowment or gift become possessed in fee of valuable property, the income from which is devoted to the support of its Church.

There are many in Great Britain who think the support of churches should be, as in this country, by voluntary contributions, and hence those questions of disendowment and disestablishment that now enter largely into the politics of the realm. But a great trouble in their settlement is what shall be done with the incomes from livings if they do not go to the churches. The Crown has no right to them or to the land from which they come, and the fee of the land can not be conveyed to their original possessors. It is a question difficult to decide, but the fact that the Church is better off without any connection with the State is abundantly shown by the state of affairs in this country.

LESTER A. ROBERTS.

PUCK AND BROWNIE.

I AM not going to write about Shakespeare's Puck, nor the English good household Genius Loci, who does up the work for faithful maidens overworked, and turns the cream to sour froth for lazy ones; but of my two friends and companions in the shape of two mocking birds. While I indite this, Puck has the end of my pen in his bill, and now and then gives a toot over my paper and turns upon me his sharp, bright eyes with a saucy cant of the head as if to say, "Is there any use in doing what you do, day after day?"

"Well not much, Puck, but then you and I do a great many useless things," at which he betakes himself to his perch in a fit of spleen.

I am living somewhat secluded in the present, and but for Puck and Brownie I might have fretted over the solitude and acclimating fever, but the pretty freaks of my birds have filled up the spaces. However, in the first place, be-

fore I talk of Puck I must tell the sorrowful tale of my dear, good Brownie, away in sleep with young Stanley's head and foot stones marking the spot under the grape vine.

Puck had become a familiar presence in my room, and with his great magnetism filled the place with sweet woodland associations. One bright morning, the windows being all open and the aroma of sassafras and cedar regaling the senses, Brownie, wild from the woods, rushed into the room and fairly broke into the cage of the mighty Puck, who so far from extending to him the rights of hospitality, treated him like a burglar, pounced upon him and compelled him to beg on his back for peace. I flew to the rescue and opened the cage door, when out they both came not disinclined to battle.

Let me here say, that both birds were of the same size, age and sex, and to a casual observer looked exactly alike;

but I soon saw that Puck was broader between the ears, and Brownie was higher above the eyes. He was more gentle than Puck, and at the assaults of the latter would open his bill and make a little piteous cry that only exasperated Puck the more.

Now, the germs of all that is bad in us human beings exist in our friends—bipeds, quadrupeds and reptiles, so that I may as well own up to the suspicion of jealousy on the part of Puck. I kept on a shelf in the room a round box containing ginger snaps of which Puck is inordinately fond. No sooner do I go in the vicinity of this box than down rushes Puck, and when it is opened in he jumps to regale himself with the cake, so well pleased that he will let me kiss his shoulders and likes well to have me call him Puck caressingly. Now Brownie having less assurance than his rival, never came near the box, but when I tossed him a bit would hop down with delight to seize it. Not so Puck, he would drop his daintiest piece and rush upon Brownie, drive him ignominiously into a corner and down upon his back, his slender legs in the air with piteous appeal. Seeing this I gave Brownie his tid-bits on the sly.

One day Puck was trying his voice, obviously pleased with the progress he was making when Brownie, sitting on a chair opposite, after listening awhile began to make a sound between a groan and blow of wind like a prolonged h-e-m—and it sounded derisive. Puck finished his stave of melody, and then the rush he made and the way he pounced upon Brownie was worthy of an ag-grieved artist. He chased him round and round the room, caught him in a corner, threw him upon his back, and rising to his proudest height stood upon him in silence. Poor little Brownie! I think he never got quite over it, nor did Puck forget that derisive mockery, for a few days after, watching his chance, he gave him a vicious blow near the eye from which he died in the night, and

when I took up the cold little shape, with more grief than I care to own up to, the vengeful Puck would, but for me, have given another blow to his lifeless rival.

Puck hadn't a shadow of remorse, from whence I infer that conscience is latent in his make-up. He recovered many of his most engaging traits which had been held in abeyance after the advent of Brownie; but, he began an ugly dance before the looking glass, which compelled me to scold him, for when I cried "Ah Puck! ah Puck!" he would obey. Still the temptation was an ever recurring evil, and rather than be harsh with my little friend, I screened the mirror. But Puck's memory did not fail him, and he tried to remove the screen that he might have the illusion of a set-to at gentle little Brownie.

For weeks and weeks after Brownie was gone Puck never tried his voice, nor does he often now except in the night. The wound to his self-love must have been serious. I think he neglected his bath during the Brownie interlude, but since he makes ample amends, splashing the water about and rushing to warm his feet on my head. The other day I was taking a glass of lemonade which Puck likes, and no sconer does he hear me stirring the tumbler than he lights upon the edge of it to enjoy his little drink, but one morning coming as usual and finding it plain water, he made a pause, tried a sip again, and then quick as a flash down went his head into the bottom of the glass, up again he came and down went his feet, then head again and so alternately while I stood enjoying the fun with him. He took a thorough bath and then alighted on my head and shoulders for drying. I, however, transferred him to the golden sunshine by my geraniums, I think this was a lovely choice of bathing tub.

Puck has many whims, and fancies, and humors. He likes to be shut up at bed time, and will play bo-peep round chairs and table legs till tired of it, and then go to a reed stretched across a cor-

ner, and throw me kisses When I take him in my hands, he gives a little baby cry, and goes quietly to bed.

Since we have given him a new cage I perceive he likes it better than the one made of reeds into which Brownie forced his way, for he goes out and into this at his own sweet will, I never shutting the door except at night, but the new cage broke up the pretty habit of snuggling into the corner and calling for me, now Puck utters a musical little cry equivalent to saying, "it is bed time," then he begins his bo-peep play, running not flying, in and out under the chairs, I doing my best to catch him and he slipping out and in with such a nonchalant air ; at length he betakes himself to his cage. and from his perch sends me a fusilade of kisses.

Here let me state that this little smack of the bill is unlike any other sound that he makes, and he utters it only as the twilight deepens, before he puts his knowing head behind his wing. Sometimes half asleep he starts up and sends me a few kisses. He never sends a kiss to any one but me.

What a pretty woodland idyl this reveals to us of the gentle denizens of the forests leaning their little heads together with tender caresses as the night draws near! The kiss that Puck gives me is doubtless an educated caress, and it must be an instinct of heredity also. I am glad to see Puck extends this privilege to no one but me. Another of his exclusivenesses I will note here. When the children (my grand-children) in their play with Puck meddle with what he has in any way appropriated, he pounces down upon them with a furious little blow of wind, the faintest resemblance to the snarl of the cat-bird, and gives them a sharp hit of the bill, but he never does this to me, do what I will, from whence it will be seen that Puck is loyal in his affections, and reasons wisely as to the Providence on which he depends.

Puck is a most companionable, loving little wretch, lighting upon my head and shoulders at odd unexpected times like a

light breeze. He is especially fond of children, joining in their sports on their heads and backs, and hitting hard when they vex him. When they play at railroad he rides on the cars, hops in and out among them, pulling lines and trotting like a little pony. They do not mind him for he is "abundantly able to take care of himself," as Horace Greely said of me. Sometimes they call him little boy, sometimes pony, sometimes Kittie, for he doesn't seem at all a bird, but woe to them if they molest a peanut belonging to him, or toy, string, or hollyberry, he is down upon them with his little blow like a gust of wind, and his sharp bill.

It will be seen that Puck has vast ideas of the rights of property. No sooner was my room decorated with the beautiful products of the South, mistletoe, holly, and cedar berries, than Puck took possession of the crowns at the windows. He flew from one to another, setting them a swinging, turning his little body about, and hopping up and down on his slender knickerbockered legs with perfect delight, then on to my head or shoulder, and then back to the crowns. He made a lovely picture in the green circle. I followed him to the window and he showed his pleasure by jumping on my head and then into the green cedar.

Just then one of the children put her hand upon the crown, and presto! Puck was upon her—such a breezy blow from his bill and such a hit with it, showed that that crown was owned by Puck and nobody else. So with them all they were his and not to be meddled with.

He claims my pens, but has to compromise here by taking the holder in his bill at odd intervals, to confirm and establish his rights, making his mark on the paper by trotting over it before the ink is dry, and carrying the pen up to the ceiling only to drop it point downwards upon the floor, and then, unless I am on guard, dipping into the ink with a decidedly literary proclivity.

But Puck appears in all his glory in the defence of his own castle. When he enters his cage all marauders had better keep aloof. I may open or shut the door, but let anyone else put in a hand or meddle with Puck's goods or chattels and they bring down the manful Puck with his fierce little blow and sharp bill, and they are glad to retreat, he standing fierce and tall in the door of his tent till the premises are clear. Think how such a *pater familias* would defend his "procreant cradle" swinging on the wild wood branch.

Puck has had serious designs of appropriating my wardrobe, sneaking there at every opportunity, and loth to come out. He likes the "dim religious light," and the feel of soft materials to his dainty feet. When I call him to come out he flies from peg to peg, and sometimes makes a coaxing little cry. Here let me say he is no vulgar little fellow to be lured by choice bits; the mocking bird seeks companionship, and that is why Puck is so well content with me. He loves to be talked to and played with, and have fun with my pens and scissors; any bright object he discovers—a bit of ribbon, red or blue, attracts him and every point of my lace gets a separate pull. He dances about with a feather, seizes loose paper and tosses it and flies to catch it again, will take my gold thimble out of my work basket and fly up to the ceiling to let it drop to the floor, liking the ring of it as well as its color.

Another thing: Puck does not like me with my eyes shut, but will pull at the lashes to make me open them. I noticed the same thing when the baby, (my grand child) was asleep on the bed, Puck seated himself on her head and began to pull at her eyelashes. Now what should make the difference to a bird whether the eye is open or shut? Ah! it is the soul of the little creature longing for the soul outlook! I pity whoever doubts this—whose inner consciousness does not teach him that any creature capable of affection has an inextinguishable soul.

I have been told that the Mocking Bird is a voracious eater—I do not find Puck a greedy boy; he sits on my head and shoulders, or in my lap from pure love; when he is hungry he flies to his cage and picks about. If he finds nothing to his taste, he flirts from perch to perch till he gets what he wants, but he never comes to me begging as pigeons and common birds will. No, no, Puck is a dainty Ariel "to put a girdle round the world in forty minutes," but no Caliban eagerly looking for a dinner.

He seeks for lofty, out-of-the-way coigns of vantage on which to perch, where he stretches himself to his full height with a becoming pride mingled with vanity; but his favorite perch is the top of a wax candle on the mantle piece; he will here find room to wave his wings like a pretty trapeze balancer. After this exercise he will snuggle into a corner with a little chirp that says plain as can be said "Come find me."

I can understand through Puck what a merry time the birds have in the woods; it is not all eating and singing with them, but a great deal of mischief-loving fun besides. Ah! that is a cruel heart that can cut short their brief, happy existence.

There is a poor widowed dove that comes several times a day to pick the crumbs I place on the window-sill for her, and I am pleased to see that the two—Puck and Dovey have struck up a friendly relation with each other and will hob-a-nob, the glass between, in good, neighborly style, Dovey being inclined to prolong her visit for the sake of this serene friendship.

Puck has been reticent of his voice till of late he yields to its melody in a true, ecstatic manner. He is an artist who studies his voice with care—practicing in an under key till sure he has conquered his part, when he gives out most beautiful, exultant and pathetic combinations, wonderful to hear. He is no bird gushing forth stereotype songs, nothing to do but repeat over and over the same

thing. Puck has "infinite variety," and sings with a motive to evolve the new and the fresh. His song is his own, learned with infinite ease, and no one can foresee what will be his next study. As yet, Puck shows no propensity at Imitation, and I much doubt whether the ugly name Mocking bird is not a misnomer. He is a bird of genius, and all inferior birds circle within the radius of his achievement, just as the human genius does all that others do, with an overplus super-added.

Sometimes a flight of wild birds go by, and Puck hails them with a peculiar cry. He mounts the highest glass of the window and then flies to my shoulders, with a little kick and flirt goes to my head and then back to the glass, quivering in every fibre of his delicate organization. Then one bird singles Puck out and dashes against the glass, and Puck returns the salutation with interest.

Ah me! then my heart misgives me and I question my right to debar so sensitive and beautiful a creature from the companionship of his forest compeers,

and the freedom of the wild woods, and resounding echoes of pine tree and plain, but I reason myself into the belief that Puck is well content and—what would such an educated bird do with those outside barbarians? I know the belligerency of my favorite, he would kill and be killed, and thus a precious soul go out in darkness. These savages would make a martyr of my devoted Puck just as the Northern Indians delighted to burn and torture the gentle, devoted Missionaries who had no motive for periling their lives with them but to save their souls. They would be too many for my darling, and therefore I shall deny him the pleasure of martyrdom.

While I write these last words, Puck is trotting over my paper dipping into the mucilage, and but for my care would taste my ink. I will not let him go. Why should I not "at my time of life," indulge in this innocent and cheering companionship, this sweetener of my solitude? and herewith Puck sends me a kiss as I say good-night!

ELIZABETH OAKES SMITH.

EDWARD EVERETT.

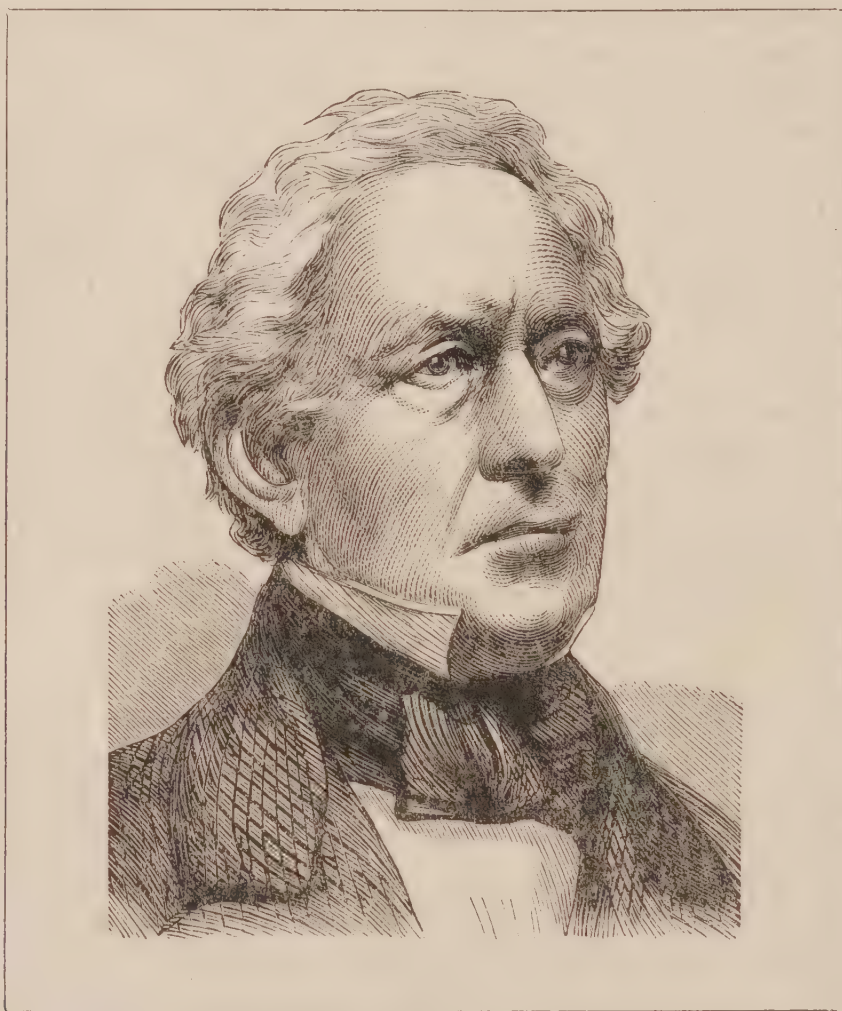
"THERE is no use in discussing American civilization, because there isn't any," said to me an American citizen, home from a short visit after two years of European residence. I am far too modest, not to say cowardly, to dispute him to his face, but privately I have my doubts. M. de Bacourt, late Minister Plenipotentiary from France to the United States was persuaded that our experiment was a failure forty years ago, because a prominent American used his table napkin for a pocket handkerchief, and again a sharp incredulity divides my swift mind. But when Lord Malmesbury comes forward in his lately published Memoirs and says that Edward Everett went to dinner in a green coat and asked a gentleman before he was introduced to him how

much beer money he allowed his servants, I fling prudence to the winds, and simply do not believe the story. It is far more likely that Lord Malmesbury should have told a lie than that Edward Everett should have asked an impertinent question. Edward Everett was no more likely to wear a green coat to a dinner party than Queen Victoria was to cut and make him a black one with her own royal hands. We have known Edward Everett as a scholar presiding over scholars, as Cabinet officer, as foreign Ambassador, as a polished and powerful orator; and in all positions bearing himself as a man of learning, of irreproachable taste, and of commanding ability. We have heard of Lord Malmesbury chiefly as a somewhat famous fop among the English nobility, and we

have known him as a British Minister of Foreign Affairs who discussed the Clayton-Bulwer Treaty with pre-eminent weakness, in a diplomatic correspondence with dear old General Cass. Therefore, Lord Malmesbury may be ruled out of the question at once. But when the French diplomat affirms that one proof of American barbarism is the absence of consideration for travellers *except women*, we admit his facts and accept his test.—GAIL HAMILTON in the *New York Tribune* Oct. 3d, 1885.

At the appointed time, the orator began his discourse, and delivered it with that courtly grace and dignity, for which he was celebrated. So thoroughly had he committed every sentence to memory, he did not once refer to his notes, which were unrolled before him. Like every production from his pen, it was smooth, polished, elegant, classical.

There was a silvery vein of subtle reflection running through it, giving brilliancy and beauty to the masterful effort. His delighted auditors listened



EDWARD EVERETT.

The first time I had the pleasure to see and hear Edward Everett, was shortly after the death of John Quincy Adams.

Faneuil Hall, the famous cradle of liberty, was filled with the wealth, beauty and shall I add the culture of Boston, for it had been announced that Edward Everett was expected to deliver the eulogy on the death of the lamented ex-President.

with unbroken attention to his address.

It is needless to say, that Mr Everett's writings and speeches are models of correct composition. His ideas, like their author, were neatly, faultlessly dressed, and never appeared in disorder from the platform or the press.

His badinage was polite and seldom gave offense to the most sensitive, his wit so refined it scarcely made a scratch on

the thinnest cuticle—his humor, so civil, all were pleased with its good nature and exquisite finish, his logic clear and forcible. He is recognized by critics and scholars as the Addison of America. If, the hearer listened for wild sallies of mother wit, fierce invective and exuberant passion in his orations he was disappointed. In the heat of debate, he never forgot he was a gentleman. He was a natural patrician, and his drawing-room deportment did not forsake him on the platform or in the pulpit.

Mr. Everett was an amiable and accomplished gentleman. He was generous to the poor, ready to aid the unfortunate and to sympathise with the afflicted. His kind words lifted Elihu Burritt, then an obscure blacksmith, into notoriety and fame. His eloquence did more than any other effort perhaps toward the preservation of Washington's home and burial-place. Certainly at the Court of St. James the subject of this sketch did not belittle the nation he represented by apeing the aristocracy of the Old World, neither did he wear a "green coat" at a private entertainment.

He did refuse to wear the gilded and spangled uniform of diplomacy; preferring the plain dress of an American citizen. The gewgaws of royalty had no attractions for him.

At home and abroad, in speech and deed, in dress and address, he maintained the principles of liberty, fraternity, equality and republican simplicity.

At the time when I first saw him in the "Old cradle of Liberty," he was sixty years of age. He stood erect, was I should say six feet tall, and well formed. His face was clean shaved and pale—head large, hair touched with silver, mouth and chin finely cut—eyes blue, large and electrical. He was neatly richly, fashionably, but not foppishly dressed.

The last time that I saw him was in his own library, where I was introduced to him by deacon Moses Grant, the famous philanthropist. My book entitled "Crayon Sketches and off hand Tak-

ings" was ready for the printer, and my publisher desired the privilege of using a steel portrait of Mr. Everett.

He, Mr. Everett, very readily and courteously yielded to the request, of the publisher, remarking at the time he granted the favor that he paid an English engraver \$400 for the steel plate. His library was a large room, lined with valuable books, there he did his literary work—putting his thoughts into elegant English.

As student in college, as president of Harvard University—as United States Senator, as Minister abroad, he was always a model of morality, whose clean character was never stained with dishonor.

Since writing the foregoing I have taken another glance at the steel portrait of Mr. Everett, showing him as he appeared in his prime. It represents the face of a gentleman in the meridian of life. The head, which is "the chief end of man" is full and well orbed, it is covered, with a vigorous growth of hair inclined to curl. The face shows refinement and cultivation—forehead high and broad, eyes large and prominent, indicating a free flow of speech—nose straight, mouth and chin not of the Bourbon type, but expressive of firmness and suavity.

Americans consider Edward Everett a good specimen of American civilization. In personal appearance he had the look of a lord, and why not? we are a sovereign people. In scholarship he was the peer of any nobleman in Europe, as an orator he had few equals, in either hemisphere, as a statesman and foreign minister he was the pride of his native country and commanded the respect and esteem of the leading men of both continents. The published addresses and other works from his pen attest his learning, his talent—I may say his genius as a master of speech, in the presentation of thought.

Lord Bacon said, "the heart is not an island, which separates one heart from another, but a peninsula which joins

them." The nabobs of Great Britain should bear in mind this fact, that the inhabitants of this land, which is "a greater Britain" are their brothers, and they can not disparage them without bringing reproach upon themselves.

Charles the V. boasted that his empire saw no setting sun. The national escutcheon bore two globes on the coin,

also the pillars of Hercules with the motto "More beyond," suggesting strength and space. We have a continent for our theater of action, and intellectual giants for actors. If the Malmesburys wish to measure lances with them, they will find an accepted challenge at any time that will best suit their convenience.

G. W. B.

GOUGH.

Knighthood is won ; to the end of the fray
He bravely led on the front of the ranks,
From dawn, when shadows of night rolled
away,

Guarding 'til even his outposts and flanks.
So strangely equipped, an army of strays,
Whose manhood near wrecked he hasten'd
to save ;

What tales they tell of woe-haunted days,
Fiercely waged fights and leader so brave.

"Knighted ! by whom ?" One who never
doth err ;

In all His wide realm what honor is won,
He doth on the winner justly confer
And writes in His book the plaudit "well
done."

When the last roll-call answer demands
Of all who have lived and peopled this
sphere,

Jubilant hosts of all kindreds and lands,
Will, with their knighted commander
appear."

A. E.

FACTS AND FANCIES ABOUT BELLS.

THE door bell rings vehemently, the sleigh bells jingle merrily by, the children hasten their tardy footsteps as they hear the bell that calls to the school-room's daily task. The church bells chime forth their sweet entreaty, and the clangor of the fire bells affright the listening ear.

Instinctively the question arises when and where did the first bell send forth its "tintinuabulation." None can tell us ; its origin dates far back into the unknown ages of antiquity. More than twelve centuries have elapsed since bells first summoned the people of Merrie England to the house of God, yet centuries before the Egyptian worshippers heard, as devoutly the bells ring calling them to their national feast sacred to their god Osiris. One fact we find in that grand old history of God's dealings with his chosen people, that Aaron's robe of priestly office was ornamented with bells of gold.

It is not strange that these sweet voiced oracles have in ages past been regarded with superstitious awe by ignorant peasants. One writer tells us of a refractory bell in the Emerald Isle, that had to be exercised every night and fastened securely to its belfry ; when the precaution was forgotten or neglected, this metallic wanderer would return to its former station in the belfry of a distant church tower.

It was believed that the arch enemy of mankind had a very natural hatred to all church bells, and endeavored with fiendish skill and cunning to destroy or injure them ; consequently in order to avert the ill the bells must be baptized, and thus ever after the administration of that most holy rite their silvery voices could drive all evil spirits from the vicinity.

Every one has heard of the great bell of Moscow, cast in 1734 by the order of Empress Anna of Russia. It was never

suspended, but many years after was placed upon a granite pedestal and served as a chapel, giving a room a trifle over twenty-one feet high and twenty-two in diameter; the weight of this unique building is said to be one hundred and ninety-three tons.

In Moscow, in an old tower, is suspended a bell huge and immovable, and to pull its clapper calls for the united strength of twenty-four men.

Our American bells are far outdone at the present time, if not in tone, in magnitude; but, after all, dearer to our true American hearts than any bell of ancient or modern times, more precious than though it were of gold or silver, is the battered, cracked old Liberty Bell in Independence Hall, Philadelphia, the bell that more than a hundred years ago proclaimed that from henceforth we were a nation among nations, free and independent.

A. L. R.

AGASSIZ DREAM.—It is said that Agassiz had been for two weeks trying to decipher the somewhat obscure impression of a fossil fish on the stone slab in which it was preserved. Weary and perplexed, he put his work aside at last, and tried to dismiss it from his mind. Shortly after, he waked one night persuaded that while asleep he had seen his fish with all the missing features perfectly restored. But when he tried to hold and make fast the image, it escaped him. Nevertheless, he went early to the Jardin des Plantes, thinking that on looking anew at the impression he should see something new which would put him on the track of his vision. In vain—the blurred record was as blank as ever. The next night he saw the fish again but with no more satisfactory result. When he awoke it disappeared from his memory as before. Hoping that the same experience might be repeated, on the third night he placed a pencil and paper beside his bed before going to sleep. Accordingly, toward morning the fish reappeared in his dream,

confusedly at first but at last with such distinctness that he had no longer any doubt as to its zoological character. Still half dreaming, in perfect darkness, he traced these characters on the sheet of paper at the bedside. In the morning he was surprised to see in his nocturnal sketch features which he thought it impossible the fossil itself should reveal. He hastened to the Jardin des Plantes, and with his drawing as a guide, succeeded in chiseling away the surface of the stone under which portions of the fish proved to be hidden. When wholly exposed it corresponded with his dream and drawing, and he succeeded in classifying it with ease.

TEMPER AND HAPPINESS. — I have peeped into quiet “parlors” where the carpet is clean and not old, and the furniture polished and bright, into “rooms” where the chairs are neat and the floor carpetless; into “kitchens” where the family live and the meals are cooked and eaten, and the boys and girls are as blithe as the sparrows in the thatch overhead, and I see that it is not so much wealth and learning nor clothing, nor servants, nor toil, nor idleness, nor town, nor country, nor station, as tone and temper that render homes happy or wretched. And I see, too, that in town or country, good sense and God’s grace make life what no teachers or accomplishments, or means or society can make it—the opening stave of an ever lasting psalm; the fair beginning of an endless existence; the goodly, modest, well-proportioned vestibule to a temple of God’s building that shall never decay, wax old, or vanish away.

JOHN HALL, D. D.

Go out of doors and get the air. Ah, if you knew what was in the air. See what your robust neighbor who never feared to live in it, has got from it: strength, cheerfulness, power to convince, heartiness and equality to each event.

EMERSON.



WHAT IS PARALYSIS.

SO many person die from what is called a paralytic stroke, or apoplexy almost interchangably, that not a little fear has been awakened, and much inquiry is made for an explanation of the causes of what appears to be a most deadly disease. Using the language of an intelligent observer we shall endeavor to give some points that are of practical value.

A carpenter or other mechanic, whose business requires him to wield a hammer, finds some morning that he is unable to raise his hammer arm, or perhaps while at work the man suddenly feels his arm become numb and weak; it falls to his side, and he is no longer able to work. The physician to whom the man applies says it is "a brachial monoplegia from muscle tire," which means simply that the man has overwrought his hammer arm and it needs rest. To these cases the very appropriate name of "artisans' palsy" is given. "Writers' Cramp," on which a short article was published in the JOURNAL lately, is of this class. Again, a poor-blooded, nervously constructed person, most often a woman, meets with a great shock or has to endure an unusual mental or physical effort, and perhaps without warning loses the use of some part of the body, often of the vocal apparatus, and is unable to speak above a whisper. The doctor calls it

"hysterical paralysis," or "hysterical aphonia," loss of voice. Now just how this comes about, we fancy it would puzzle the most learned specialist to say. Concerning this condition, however, as well as the one before mentioned, this much is known, viz., that by appropriate treatment they recover, which is very good evidence that no part of the nervous apparatus is broken. The faith cures reported from time to time are probably, for the most part, cases of this kind.

It sometimes happens that an intoxicated person will fall asleep with the head resting upon the arm or with the arm hanging over a chair back. When he wakes the arm is numb and is paralyzed—another case of "brachial monoplegia." Pressure upon the trunks of the nerves which supply the disabled member has affected those nerves so that they are unable to perform their usual duty. The nerves which go out from the brain and spinal cord to the extremities are quite comparable to the wires which are stretched from place to place for electric communication, and pressure upon one section of those nerves produces results very like those which follow an interference with the electric wire. The case just given illustrates very well a large number of cases of palsy from pressure, for pressure upon the brain or spinal cord, or the nerves which have their

exit therefrom, will produce a palsy whose extent will depend upon the extent of the pressure, and whose duration will depend upon the chances for removing the pressure. Pressure upon the nerves which supply one side of the face produces a very characteristic paralysis, and one that causes very many laughable mistakes on the part of tyros and non-professional people by their attempts to detect the affected side. Pressure upon the brain or spinal cord may be due to the presence of tumors, to fractures of the skull, or to the upper bones of which the backbone is formed, and to blood clots within the skull or spinal canal. Patients who recover from diphtheria, scarlet fever, and some other acute sickness, are frequently paralyzed in some part. These cases generally recover by proper treatment, and it is quite probable that many cases would recover spontaneously if let alone.

People who work in lead are liable to a peculiar form of paralysis, which is first seen, as a rule, in the muscles of the forearm, on account of which the patient is unable to extend the hand upon the arm. At times the whole muscular system is involved. Change of occupation and the use of remedies which will assist the elimination of the mineral from the system is the proper course for such patients. Analogous forms of paralysis are caused by arsenic and quicksilver, probably by their action upon the nerve structure of the spinal cord. Woorara, the Indian arrow-poison, will also produce paralysis if introduced into the system in sufficient quantities. The paralyzing effect of large doses of alcohol are well known.

Certain conditions of the circulatory apparatus predispose to extensive and often incurable paralysis. Here it is that most cases of apoplexy occur. The arteries are elastic tubes. By age, hard work, care and the prolonged use of alcoholic drinks, these tubes lose their elasticity and become brittle. By some event which excites the flow of an un-

usual quantity of blood to the brain one of these now inelastic tubes is broken, the poured-out blood settles in the ventricles and there form clots whose presence causes speedy paralysis.

Owing to certain systematic conditions fibrine, a substance normally suspended in the blood, sometimes lodges upon the flood-gates or valves of the heart. Presently a part of this matter is dislodged and washed away into the blood; perchance it reaches an artery in the brain which will not permit it to pass. Then we have an "embolism" which cuts off the blood supply from a part of the brain, one of the immediate symptoms of which is palsy of the part of the body which receives its nerve supply from that portion of the brain. These paralyzes are usually extensive, and are not readily distinguishable from those just mentioned.

Finally, changes in the structure of the brain or spinal cord produce paralysis, more or less localized and varying in extent with the extent of nerve structure involved. Such paralyzes are especially obstinate in those of advanced years, and usually produce disability in the legs.

The study of this subject has led to the determination of certain brain centres as possessing special muscular control, so that many kinds of paralysis can be traced to disease or loss of function in definite parts of the encephalon.



WATCH THE CHILDREN'S FEET.—The following advice from the *New York Evening Post* is thoroughly practical, and deserves the attention of every mother: "Life-long discomfort and sudden death often come to children through the inattention or carelessness of parents. A child should never be allowed to go to sleep with cold feet; the thing to be last attended to is to see that the feet are dry and warm. Neglect of this has often resulted in a dangerous attack of croup, diphtheria, or a fatal sore throat.

Always on coming from school, on entering the house from a visit or errand in rainy or muddy or thawy weather, the child should remove its shoes, and the mother should herself ascertain whether the stockings are the least damp. If they are, they should be ta-

ken off, the feet held before the fire and rubbed with the hands till perfectly dry, and another pair of stockings and another pair of shoes put on. The reserve shoes and stockings should be kept where they are good and dry, so as to be ready for use on a minute's notice."

TREATMENT FOR CATARRH.

ALTHOUGH not openly acknowledged as such catarrh is the characteristic, chronic disease of a large portion of our country. Yet, perhaps, it scarcely deserves the name of a disease, for in the greater number of cases, it is a symptom, indicative of a state of health. It is for this reason that medicines administered with direct reference to it are so powerless. A layman, who has suffered almost to the limit may be permitted to make some remarks in regard to means for combating catarrh in virtue of his own long experience and substantial recovery.

The physicians tell us that a reduced state of health is the primary cause, and they very wisely attempt a building up process. Unfortunately the most perfect building up does not in this case eradicate the disease unless the patient does his part. In a word the physician is quite powerless in the face of catarrh without the co-operation of the patient, as he would be with dyspepsia. And like dyspepsia, the trouble may be prevented, often modified and sometimes cured by attending to the laws of health, the system recovering by its own elasticity.

Abandoning the theory these directions must be followed: The body must be kept warm both night and day. Clothing must be of such quality and quantity that no feeling of chilliness nor even of coolness is felt at any time out of doors or in. This is especially important during the winter and fall. The wrists must be kept warm and should be protected by "wristlets" or "pulse warm-

ers." Next attention must be paid to the hands. If gloves will not protect them then use mittens, and if one pair will not answer put on more. At first it seems almost impossible to keep the hands perfectly warm; but as the catarrh diminishes, the circulation improves and less trouble is encountered. The foundation for chronic catarrh is frequently laid in childhood during rapid growth, by the exposure of the hands and feet in cold weather. Children have to be watched and only a personal examination by feeling will determine whether the child's fingers are cold. Next to the hands come the feet. To keep them warm is more difficult; a layer of curled hair on the bottom of the foot and inside the stocking is infallible. Other directions for keeping the feet warm are difficult to give. Some find warmth in cotton socks the year round and are nearly frozen when wearing woollen.

The warmth of the whole body having been secured, some other things must receive attention. First of these is the bathing of the feet. This ought to be done every night with hot water and in a warm place. The sole and the whole foot should be well rubbed to remove scarf skin. In no case should the washings be fewer than twice a week. The frequent washing of the feet is essential provided certain precautions, to be mentioned presently, are observed. The whole body must also be bathed as often as may be convenient, for the purpose of keeping the pores open. In doing this however the greatest care must be

taken not to allow cold air to strike the skin. All exposure of the bare flesh to even a cool air, must be avoided. To do this it is necessary to abandon the old New England idea of sleeping in a cold room. The sleeping room must be kept warm, and its temperature should not in winter nights fall below 60°. In dressing and undressing great care must be taken to prevent cold air from striking the body. The appearance of "goose flesh" even for a few minutes, means an aggravation of the disease. In the sleeping room the aim should be to imitate the temperature which prevails during the last week in September and the first week in October. The ground and the water have then reached their maximum temperature while the air is about 65 or 70. This is the most healthful season of the whole year, a fact which is proved by the careful statistics of the Register of Vital Statistics of New York. Fewer deaths occur at that time in New York City than at any other in the whole year. In October and the preceding month the catarrhal symptoms, even in chronic cases, are reduced to a minimum. We are right, therefore, in imitating as far as possible the climatic condition of that period. To do this the sleeping room must be kept at a temperature not more than 28 degrees Fah. below that of the human body, which course is the standard. The water for bathing must be of the same temperature.

Children, especially the little ones, need careful watching when going to

bed; the temptation to run about half naked when freed from the restraints of clothing is a strong one which few parents can deny the pleasure of seeing. The parent, if spoken to in regard to such a practice, usually replies that "we always allow them to run about in this way before they go to bed," and perhaps add "I always did so when a child." This answer was received recently from a person who suffered from chronic catarrh of the worst type, and whose children were slowly showing the indications of *catarrhal* tendencies.

When a proper temperature can not be maintained in the bedroom together with an abundant supply of warm, fresh air, extraordinary precautions must be resorted to in order to guard against taking cold while dressing and undressing. The system needs an abundance of easily assimilated nourishment in order to withstand the drain of the disease and at the same time build it up and enable it to resist the trying climate of the Eastern and Middle States.

These rules have been deduced by a study of the conditions surrounding a large number of persons suffering from catarrhal troubles, and an observation of them when the disease was in its dormant and most active conditions. Most people will recognize these directions as "Rules against taking cold," and if they have not an acute cold in the head suppose that they have escaped with immunity after having exposed themselves.

W. E. PARTRIDGE.

ALCOHOL AND SCIENCE.

AMONG the many interesting papers of "One Hundred Years of Temperance," a volume in press for the National Temperance Society, is one of great value by Dr. N. S. Davis, of Chicago, founder of the American Medical Association, from which we quote the following:

"In tracing the progress of scientific knowledge concerning the nature and

effects of alcoholic drinks, we find the following propositions have been clearly and fully established, by strictly scientific investigation and experiment without the slightest regard to social or moral considerations on the part of the investigators:

"1. That the active agent in all the varieties of fermented and distilled liquors in use is alcohol or ethylic ether, the

properties of which are the same in all, it differing only in quantity in the different liquids.

"2. That this alcohol belongs, chemically, to the same group of hydro-carbons as the different varieties of ether and chloroform now generally called anæsthetics—in other words, it is ethylic æther, composed of hydrogen, oxygen and carbon—and can be produced only by a process of fermentation in substances containing saccharine matter.

"3. That alcohol, wherever found, whether in fermented or distilled liquids, when taken into the human stomach is absorbed and enters the blood unchanged, and circulates with that fluid through every organ and structure of the body, until the greater part (if not all) of it is eliminated through the skin, lungs and kidneys.

"4. That while in the blood the alcohol produces all the effects of a pure anæsthetic and sedative, directly diminishing nerve sensibility, muscular contraction and molecular movements throughout the system.

"It is the diminution of nerve sensibility that renders the individual first light, airy and hilarious, giving the popular idea of excitement or stimulation; second, dull, hesitating, or incoherent in thought and speech, and unsteady or staggering in gait, popularly recognized as incipient intoxication; and, third, entire unconsciousness and muscular paralysis, constituting dead-drunkenness or complete anæsthesia. The successive stages are developed in direct ratio to the quantity taken.

"5. That the habitual use of alcoholic liquids, either fermented or distilled, by the anæsthetic effect of the alcohol on the nervous system, tends to create a demand for more, and consequently moderation in the beginning very generally leads directly to excess sooner or later.

"6. That alcohol while in the blood, in contact with the structures of the body, is not appropriated as food, but by its

strong affinity for the albuminous constituents of the living structures it retards the natural molecular changes constituting nutrition and waste, and thereby weakens all the processes and functions of life. If taken in large quantities at once or in smaller quantities frequently repeated, it is capable of so completely paralyzing the nervous system and arresting molecular changes as to produce speedy death. In small quantities repeated from day to day it simply lessens nerve sensibility, blunts mental and moral perceptions, and slowly but surely prevents the nutrition of structures in such a way as to make the system more readily yield to almost all the causes of disease, and to specially favor the developement of either sclerosis or fatty degeneration in most of the structures of the body, and especially in the liver, kidneys, heart and brain.

"7. That it can not be taken in health without injury, and though, in skillful hands, it may be used to a very limited extent as a medicine, it is not necessary, since in the limited number of cases or diseased conditions in which it could be used with benefit there are other agents still more beneficial that can be substituted for it."

LEGAL IMPORTANCE OF INJURIES TO THE NAILS.—In the researches made by Beau on the growth and development of the nails, he studied the semiological importance of the furrows or depressions which are observed in a number of diseases especially in febrile affections, and he called attention to the medico-legal importance those furrows would have in a case where the accused might have some interest in concealing the existence of an anterior disease, the date, duration and details of which could thus be established. The medico-legal value of those suggestions have lately and for the first time been put to practical test by Mr. Contagne.

A burglary was committed during the night in the last week of October 28, and

owing to various traces it was evident that the thief had wounded one of his fingers. A month later three men were arrested on suspicion of having done the deed. On examination, Mr. Contagne found that one of these men bore marks on the medius finger of the right hand of a lesion of the nail consisting in a scar about midway of the nail, caused, no doubt by a wound on its external half which, while serious enough to have affected the connection of that organ with its matrix, had healed without entailing any necessity for a new nail, and after a time had only left a scar due to imperfect nutrition. During the examination the accused evinced great uneasiness and affirmed that the scar was the result of a wound from a stone received six months prior. The fallacy of this explanation was, however, evident.

It is known that the average growth of the nails on the index, the medius, and the annular finger is four millimetres a month.

At the second examination made on the 30th of December, the distance between the lower edge of the scar and the lunula was found to measure eight millimetres, consequently a wound at the base of the nail two months earlier, the date of the burglary, could have caused the scar ; in other words, assuming the growth of this man's nails to have been normal the scar indicated an injury received since, but not prior to two months.

Three other measurements were made at monthly intervals, so as to prove beyond a doubt that the man's nails grew in a normal manner, and it became, thereby, possible to overthrow his entire system of defence.—*Jour. des Sci. Med.*

COLLEGE DISADVANTAGES.

THE University or college course which, according to our method of thought, is almost necessary to the completion of a youth's education is attended with some disadvantages.

First, as a rule in our large institutions there is no recognized and enforced standard of purity and excellence of behavior ; no concentrated efforts to guard students from contaminating and roughening influences ; these may be considered impracticable while the facilities for intellectual instruction are extended and the courses of study in themselves approved.

The main disadvantages are chargeable partly to the vast number of youth together ; the sons of a thousand homes are thrown together, away from the restraint of loving care. Each youth has, in his individual home, probably been the object of watchful affection, there crowded promiscuously they rely on their own and each other's resources for entertainment when off duty.

Among the most approved recreations are athletics, which are too often

struggles of physical strength, cane fights, book fights, rushes, foot-ball and base ball. The games are the chief topics of conversation. They are reported with much comment by the press of the country, until it has become a question of vital importance with those who have sons to educate whether there can not be a separation between mental culture and violent athletics in college life ; an improvement in or division of them.

We all realize the necessity of bodily exercise and recreation, but games cease to be recreative when they result in physical abuse. Hazing, crushing, pulling and knocking may be toughening to constitutions that can endure them, but they are debilitating to mental and moral faculties, consequently not what we desire as part of a college course.

The foot-ball teams of the various institutions fare worst, and their members may be usually recognized by their maimed condition, scratched and bruised faces, broken fingers and kicked heads ; to say nothing of the more disastrous

results of the popular match games, when disabled men are not unfrequently carried from the field. No harm whatever is intended by the players to their fellows, but in their rush for the ball they lose sight of all else and injure each other promiscuously.

As a plea for the lax discipline in this respect at colleges it is argued that the students are often over age and would not brook control. In reply I would say, the men who are prepared for and sufficiently ambitious to desire higher education are usually gentlemen. It is because of the vast number together, the disadvantages on entrance and the lack of opportunity to develop individual manliness that they often err. If the Freshmen, instead of being treated

as interlopers, were courteously welcomed by the older students and their interests better protected by the faculty, their position would be more pleasant and uplifting. Their better feelings being drawn out, they in turn would be quick to respond to courtesy and extend it down the line to the next new comers.

Our country needs the refreshment of stronger and purer moral forces, and where may we look hopefully but to the out-put of our Universities and colleges for a response to the demand. Our learned men should be our good men. The leisure hours and powers of youth should be justly, healthfully and profitably employed if we would obtain the fullest, best and happiest results.

MRS. S. L. OEBERHOLTZER.

DON'T DO IT.

LISTEN, girls, just a few minutes, listen to the list of penalties you must pay if you adopt the incoming fashions of long, tightly-laced waists. What a hideous resurrection from "the dark ages" this winter's fashion plates are with their attenuated waspish bodies. Those ladies who have been timidly, but with great joy, learning the blessedness of easy fitting clothes during the past ten years will not be tempted back into the thralldom of "strait-jackets" again, but the girls—will they have the stamina to say—"no" to the edict of the soulless monster, fashion?

Don't deform your beautiful bodies by such suicidal folly. There is just so many pounds avoirdupois of your body, if you squeeze the waist, your wrists, ankles, neck and abdomen will be enlarged, and the beautiful outlines of nature's moulding will be destroyed. The face will lose the power of growing beautiful even up to the winter, which may prove summer, of old age. The exquisite taste, the completeness of many pleasures is sacrificed, never again to live, by blind obedience to the barbarous fashion.

To the eyes of the artist, the poet, the physician, these mandates issued through the pages of the fashion journals are suggestive of torturing cruelties, that equal the tales of the Inquisition, and the suffering will reach out with skeleton fingers beyond the silly girl votary—beyond her bridal to her motherhood, to strangle her pretty babes, and leave her with bitter memories, invalidism and loneliness.

It is a very cruel thing when years of preaching and patience have won women to strive for a better womanhood, that the girls must be assailed by a revival of the torturing stays. There is this hope to buoy up the brave ones, artistic tastes have grown so rapidly and are so strongly indorsed in all our homes, Dame fashion may find her angular hour-glasses, square shoulders, and hectic patched pallor quite ignored.

Don't follow her lead in this, girls—don't do it—the plates look horrible now, but remember the old rhyme about vice, and be very careful that you are not led into being embraced by this insatiable monster.

A LADY PHYSICIAN.

NOTES IN SCIENCE AND INDUSTRY.

Life Duration of Microbes.—M. Duclaux has written a paper on the duration of life of the germs of microbes. He has studied some organisms preserved since the first researches of M. Pasteur, in 1859, under the most varied conditions—in various liquids, sheltered from or in contact with the air, also dry, in darkness or in light. The germs sheltered from the air and in liquids slightly alkaline show the greatest vitality. Out of sixteen flasks in these conditions fifteen have shown fertile germs after twenty-three or twenty-four years. The limit of life under these conditions is not known; but it must be added that they are rarely realized in nature. In all the flasks where in the liquid had an acid or a strongly alkaline reaction the germs had perished. The species which showed most resistance are: Among the mucédines, *aspergillus niger*; among the micrococci, *urococcus vivax*; among the bacilli, *tyrothrix tenuis*, *tenuior*, *tenuissimus*, and *filiformis*. These species, at the same time, resist most the action of heat. The spores of many can support a temperature of 110° to 115° C. without perishing. In the adult state these same species are less resisting, both as to time and heat. In the liquid exposed to the air the resistance is observably inferior. Bacilli and yeast are still more resisting than micrococci. Further, the germs weaken rapidly in these conditions. It is known that M. Pasteur utilized this action of the air in order to obtain the attenuation and transformation in vaccine of many formidable, pathogenic microbes. But it is when dry in the air, and especially exposed to the sun, that the life of germs is much shorter. The *aspergillus niger* of M. Raulin was alive (in the spore condition) after being twenty-two years in a liquid sheltered from the air, but has always been found dead after being kept three years in a closed tube, dry, and in the dark. The *tyrothrix filiformis*, whose resistance in a liquid sheltered from the air is not less, perishes after thirty-five days' exposure to the sun. "This testifies," says M. Duclaux, "to the special action of sunlight; . . . and the old physicians had ground for regarding the rays of the sun as powerful hygienic agents.

A Woman in Iron Machinery.—An account is given of the introduction in-

to England by Mme. De Long of her metal cutting machinery, which has for some time been in successful use in France. She has now it appears, perfected some ingenious machinery, worked by steam power, which cut with the utmost precision the hardest and softest metals, in any design, so that by it can be produced a gold lace pin or a steel castle portcullis from the solid metal, without any moulding or filing. This unique industry is divided into four general branches. The first is a production of gates, doors, balcony fronts, and other architectural metal work without casting—plates of brass a foot thick being thus cut into lattice work at a single operation; a second branch is the making of lattice metal work filed in with glass, to supersede the ordinary leaden frames for church and other ornamental windows; the third branch comprises the inlaying of plush and ebony jewel cases, cabinets, etc., with red and yellow copper, steel, and other metals; and the fourth for the working of picture frames, baskets, crests, etc, out of the solid metals fully finished.

Farming on High Priced Land.

—A correspondent of the *N. Y. Times*, makes a very favorable calculation on this much discussed topic: Some farmers are much concerned about the high price of land, and are expressing the belief—whether they have it or not—that it can not pay to farm on land worth \$100 or \$200 an acre. Let us see. It is quite possible to grow 80 bushels of corn or 30 bushels of wheat per acre in average years. Within 100 miles of a shipping port corn is worth 45 cents a bushel and wheat is worth 90 cents. To get land for \$20 to \$40 per acre a farmer must go very far from shipping ports and where he can only get 20 cents a bushel for corn and 40 for wheat. The difference in value supposing the crops to be equal, will amount to \$20 on the acre of corn and 15 on the wheat. This difference will pay 5 per cent, on \$400 per acre in the one case and \$300 on the other. It certainly seems as if the high priced farms had the advantage over the cheaper ones, and when it comes to selling bulkier crops or live stock the advantage is all the greater. To make farming on high priced land pay, then, all that is necessary

is to farm high and raise as large crops as the land possibly can be made to do. If the owner of a 100-acre farm worth \$20,000 were to sell his property for cash he could not possibly invest his money nearly so well as it was in the farm, for the interest at five per cent, on the capital would not begin to provide him with house, provisions, comforts, and luxuries which he enjoyed on the farm, but never took any account of in his bookkeeping.

Concerning the Venous Circulation in the Fingers.—The separate injection of minute venous radicals is a matter of difficulty, owing to the resistance offered by the valves. M. Bouceret adopts the following method: The part to be injected is kept in a warm bath. 104° to 113° Fah., for five or six hours. The arteries are then injected with a colorless fluid; as soon as the subcutaneous veins appear to be well defined, but before they are distended, the injection is stopped. A canula is inserted by means of a trocar into the largest of the superficial veins. A simultaneous injection is next made of the artery with red fluid, and of the vein with blue fluid. Each fluid penetrates to the capillaries, and the color of the part is pretty much that which is seen in life. It is supposed that the colorless fluid either makes the valves of the veins incompetent by distention, or else that it actually forces the valves against the sides of the vessels. This method has brought to light what appears to be a discovery, which is no less than the existence of a special collateral circulation in the fingers perfectly distinct from that which nourishes the tissues. The branches which are given off from the collateral arteries are very few and thin, so that the trunk vessels are hardly reduced in size where they terminate in an arch at about the middle of the palmar aspect of the last phalanx. From the arch many arterial tufts are given off, and divide in the pulp of the finger. These vessels have no *venæ comites*. Practically, the tufts are like the *glomeruli* of the kidney. They are found in abundance about the arch before mentioned and under the upper two-thirds of the nail, as well as over the thenar and hypothenar eminences. The ordinary mode of vascularization is found side by side with this special form. The large size of the digital vessels at their termination is in great contrast with the comparatively slight nu-

tritive wants of these parts, and M. Bouceret believes that the object of the special kind of circulation is to afford more nourishment and warmth: but there seems more probability in M. Poirer's suggestion that it is related to the exquisite sensibility of the localities concerned.—*Lancet*

Singular Effect of Type Setting.

—An eminent French physician says that the handling of types has the tendency to destroy the powers of maternity in woman, for which reason he objects to their employment in printing offices and type foundries. Dr. R. Ludlum, who stands in the front rank of his profession, confirms the assertion and cites cases to prove it. If this theory be well founded, it will prove a serious objection to women becoming compositors. We can scarcely help thinking that such an opinion, whatever its authority, savors a little too much of dogmatism, for granting it we will be compelled to admit that there are other lines of employment favored by women of equally pernicious tendency.

Prevention of Fires.—The diagram herewith presented will doubtless prove an interesting and in some aspects a startling study. "It is always some other person who was careless" said an old insurance agent when relating some of his experiences in investigating causes. An inspection of this diagram shows, that, putting aside the lawless incendiary and one or two natural causes against which it is almost impossible to be always guarded, the largest proportion of the remaining causes may be classed as preventable. If the great public can be educated in the methods of preventing fires to a degree that will release us from the perpetually haunting spectre of the fire fiend, a good work will have been accomplished.

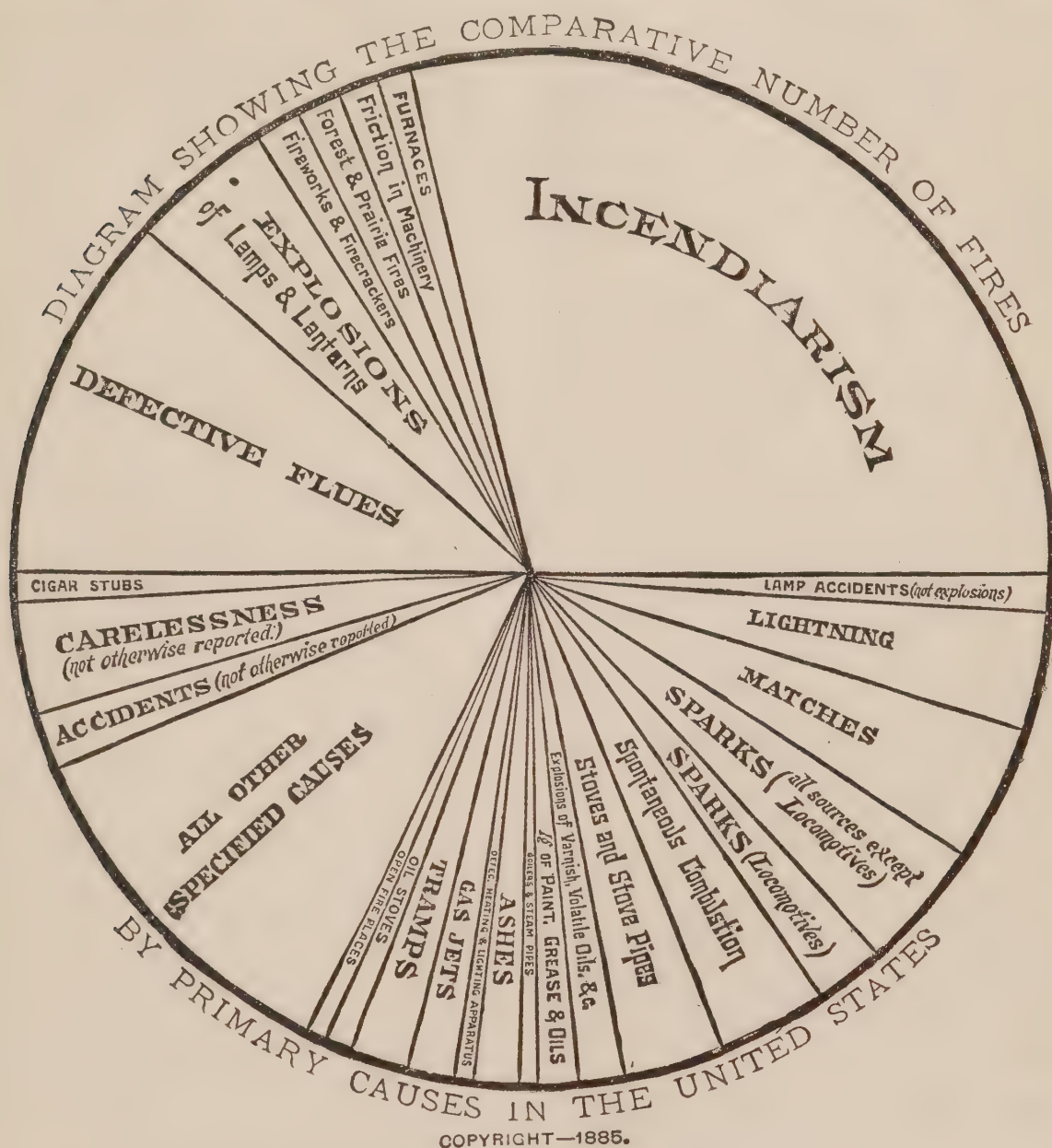
Incendiarism covers much ground, it is an ugly word and perhaps does not so frequently refer to the maliciously revengful, the idiotic or maniacal as to the avaricious householder who is "overinsured" and is thereby led into, if he has not with forethought prepared the way for temptation. Defective flues are largely chargeable with unpleasant experiences. All householders and builders should insist on the "stitch in time" principle and have their flues as carefully constructed on the inner surface as though they were to be put on exhibition, plaster-

ed flues are objectionable as the plastering scales off leaving the bricks exposed. The best flue is built of selected bricks laid evenly in good mortar and pointed inside. Carelessness with matches is so common that one who is careful with them is set down as "cranky" only metal match boxes should be used both for burned and unburned matches.

Phosphorus is a dainty to mice and the access to the match-box, by those meddle-

and his pocket money that he consumes, but his demoralized sensibilities render him so careless that he is proving himself a veritable and dangerous fire-brand.

Lamp explosions generally occur with low grade oils, but they are largely traceable to gross carelessness and foolhardiness in the way of filling while lighted, using the can near to flames, allowing the oil to run low in the lamp, or the burner to become



some pests, should be carefully guarded against, the safest matches for household use are those that can only be ignited on the accompanying box, for stores and large establishments, unless the gas jets are controlled electrically, the safest plan is to have a perpetual burner in some convenient place and from that, light other burners by tapers. The smoker, particularly the cigarette smoker, is responsible for many losses and fatalities, it is not alone his health

foul. Sawdust spittoons have doomed many domiciles, as also have sweepings, soiled flannels heaped in a close corner, painters' overalls pitched under the stairs, greasy waste and accumulated papers. Spontaneous combustion of animal and vegetable oils in contact with animal and vegetable fibre is of every day occurrence, and is wholly preventable by care. The unguarded, rust-eaten stove-pipe is a dangerous weapon in the hands of the fire-fiend. See well to your

stoves that the pipes are clean, strong and separated from the woodwork by air chambered collars. Ashes should be taken up into metal cans, and never should be allowed to accumulate in cellars or areas. Gas jets should be so placed that they can not be swung against the wall and it is always wise to protect them by globes or wire screens; a jet 18 inches from a ceiling is unsafe unless protected by a metal shield, with an air chamber back of it.

Explosions of volatile oils, varnishes etc., are usually caused by ignition of the gas arising from them at ordinary temperature; heat or open lights should be excluded from rooms where such materials are kept, and clean, dry sand should be used to absorb the drippings, thus avoiding liability to spontaneous combustion.

Self-oiling bearings, the use of high grade oils, strict attention to cleanliness, with the shafting kept true and in line will prevent disasters from the friction of machinery. Where furnaces are in use, a solid foundation and ample front to the ash pit are of great importance. Before using the furnace, after a summer's idleness, a competent person should examine it in every part, the fee will be a good investment and practical economy. Oil stoves are exceedingly objectionable to insurance companies, and certainly they are "gruesome things" scarcely safer than the servant who uses the oil-can to kindle the fire, and sometimes makes a short cut to another land, becoming mistress instead of maid, by compelling the family to go with her. The danger arising from carelessly laid steam pipes is beginning to be realized, and owners as well as tenants are looking none too soon into the subject of the best methods of laying, and protecting these very necessary adjuncts of city life and traffic.*

Washing.—Young housekeepers will be interested in the following unusually explicit directions from *The Cook*:—Washing is so common a thing that one might readily suppose every housewife familiar with the mysteries of it. And so they frequently are so far, at least, as enables them to make things look clean, but how few can combine this cleansing process with the preservation of the articles which are washed. Almost

invariably the same system is used in washing articles of every description. I have been told by a gentleman who has had much experience in hiring help for the laundry in hotels that it is exceedingly difficult to get good laundresses, even there, where there is not so great a variety of washing to be done as in private families.

In washing plain, white clothes a few general rules will suffice. First—Never put your clothes to soak the night before wash-day, unless you use warm water and soap them well. It is not necessary to soak them at all. For washing, prepare a tub of warm water with a little soda, which is not at all injurious to the clothes if used in reasonably small quantities. If there are spots on any article, wet them first in cold water, then take each article separately, and put it into the warm water, soaping well all parts that are much soiled. When your tub is well filled, push the clothes back and add hot water, but be careful not to put it on the clothes, or you will be likely to scald the dirt into them. Wash them twice before boiling, and rinse thoroughly after. The washerwomen of Belgium and Holland, so proverbially effective in their work, use borax instead of soda; it saves soap, softens the hardest water, and does not in the least injure the texture of the linen. Colored muslins or lawns must be washed one by one in cold water. If they are very dirty the water may be lukewarm, but no more. But, above all, be careful not to use the smallest particle of soda. The best soap for articles of this material is the common yellow. A small piece of alum should be boiled in the water in which the lather is made. The soap should not be allowed to remain any time in the linen, but the articles washed should be rinsed immediately after washing, and hung out to dry. Leave all articles beside the tub, washing each separately. They must be ironed as soon as they dry, and not allowed to remain damp over night nor be sprinkled. Do not iron with hot irons. Pink and green tints may withstand the washing, but will be likely to change color as soon as a hot iron is put upon them.

Color of Eyes and Marriage.—Some curious researches have recently been undertaken by Swiss and Swedish physicians on the color of the eyes, but without any apparent practical purpose. For convenience, all eyes were divided into blue or

* We are indebted to the Home Fire Insurance Company of New York for the use of the diagram accompanying the above article.—ED.

brown, the various shades of grey eyes being classified according to the prominence of blue or brown in their color. Some of the conclusions drawn from a great many observations are these: That women with brown eyes have better prospect of marriage than those with blue; that the average number of children is greater with parents whose eyes are dissimilar. In children, both of whose parents have blue eyes ninety-three per cent, inherit blue eyes; but in children both of whose parents have brown eyes only eighty per cent, have brown eyes. The above results were reached in Switzerland. In Sweden, the discoveries were not quite the same. The women with brown eyes are more numerous there than the men with brown eyes, but brown eyes are apparently increasing there, as in Switzerland.

Eggs in Winter.—In the days of our boyhood, which was sixty years ago, we had the care of a number of hens, and at that time, we never expected and seldom had any eggs from them in winter. This was owing to a want of knowledge, in regard to the way to feed and take care of them. We have kept hens since and they have produced eggs in winter as well as in spring and summer, although the number has been less in cold, than in warm weather. But there are persons who have studied the egg-producing question so closely and have learned the secret of caring for fowls in winter, so well, that they obtain as many eggs from them in cold weather as in summer. Mr. A. T. Weston, a resident of Westfield, Mass. has kept fifty hens during the past year and they have up to Feb. 28, 1886, produced twenty-five eggs per day. He had more eggs in two winter months than in any other two months of the year. He had no artificial heat in his hen-house, feeds with wheat bran mixed with boiled potatoes, well warmed in the morning, a mixture of wheat, oats, cracked corn, with a little meat at noon and night.

P. S. BUELL.

The March Meeting of the Academy of Anthropology.—Was held at the house of the President, Dr. E. P. Thwing, Brooklyn, New York. In behalf of the Committee of Instruction, Dr. Thwing reported Monday evening classes and also an Emergency class. For these thirty students were by vote received un-

der the charge of the Academy. The Rev. and Mrs. Thomas Douglass, were elected members. A critique on John Fisk's, "Destiny of Man," by Dr. H. S. Drayton, Secretary, was read and received close attention. Prof. Round, secretary of the National Prison Association, sent a letter embodying several points of interest relating to his visit to the late Anthropological Congress at Rome. The Congress he wrote, was composed of 234 delegates and lasted ten days. Eighty of the delegates were sent by various governments and were denominated official. The sessions were held in the rooms of the new Academy of Fine Arts in Rome, under the patronage of the King of Italy, who attended in person several times. The arrangements had been perfected by the International Prison Association. Among the principal attractions was a collection comprising the skulls of 700 criminals, the brains of 150, the photographs of over 3,000, and the autographs, mechanical products and ingenious contrivances of many others. The discussions at the Congress all appeared to unite on the apparent necessity of reform in the manner of conducting penal institutions throughout the world.

Prof. Nelson Sizer, introduced the subject of the evening's discussion, "The Laws and limitations of Heredity." "The chief thought in respect to heredity," said the Professor, "should be to improve the human race and elevate the plane of life. Even among savage and barbarous tribes there springs up occasionally a character highly endowed, without a peer in his nation. If a race of people are unskilled in mechanism and other blessings of civilization, that race can be elevated by training and culture, so that their children will be born with an improved tendency toward a higher mode of life. We cultivate horses toward strength; we cultivate in the direction of speed, and culture has brought the time down below two minutes and ten seconds. In mechanical regions the standard of mechanism constantly improves until the people become widely known for skill. In regions where scholarship prevails there is an increase of tendency to scholarship till children are 'born with a book in their hand' if not with a gold spoon in their mouth. A people situated where war is constantly imminent, if not raging, will, from generation to generation, increase in their warlike spirit. The African at home

has little tendency to ingenuity or acquisition. The Southern slave after a few generations becomes more ingenious and mechanical and more disposed toward property; but his free brothers in the North is still more strongly developed in these traits. And, as a matter of fact, the white children in the Southern country who have been educated and trained during and since the war are more strongly marked in the qualities of ingenuity, the desire for acquisition and the tendency to secretiveness than their parents and grandparents, and the change in brain development is so great as to be noticeable. A child born in a family of given

characteristics may be improved in character and power or depressed and debased according to the surroundings of the parents previous to the birth. In a given family a child will be born a tyrant or a shylock, or a poet, a crank or a debauchee, as a result of an incidental condition on the part of the parents, and if we could read the early history of the father of the 'prodigal son' and of his brother who behaved himself, we might learn the cause of the difference.

In the discussion that followed much interest was shown. Dr. Edward Beecher, S. S. Gay, M. D., the Rev. W. H. Ingersoll, and others taking part.



FOWLER & WELLS COMPANY., *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
APRIL, 1886.

ALREADY DISCOVERED.

IN an address made by a Georgia physician at a meeting of the Medical Association of that state, it was announced that the "physiological condition of success in life depends mainly upon a vigorous, healthy action of the brain and nervous system." With this proposition no one conversant with the general average of human activity will be likely to find fault. In another place the speaker expressed the belief that much would be accomplished "could we discover the ways in which the brain capacity is increased and lowered."

It seems to us that we have here an intimation that challenges the neurological learning of the time and imparts a want of practical information concerning a most important subject to physiologists generally. If the learned doctor can formulate the conditions of "a vigorous, healthy action of the brain," should he not to some extent be able to define how brain capacity may be increased or lowered? Are there not laws of growth, nutrition, hygiene fairly ascertained that can be applied to a given case and their effects be confidently expected? What mean the numerous treatises that come from the press with names like those of Maudsley, Bennett, Bain, Galton, Cerning, Horne-Tuke, etc., if there are no accepted principles on which methods for the care, recuperative training and invigoration of the brain and nervous system can be based? Surely it must be that the Georgia Medical Association has among its members gentlemen who could have answered Dr. Searcy's appeal for information with regard to ways in which brain capacity may be increased and lowered. As for lowering it one has only to look around him to see a hun-

dred influences at work that tend to lower mental capability. Society tolerates a long list of weakening and corrupting agents, and there are specialists who claim much ability in the way of correcting bad, mental as well as physical habits, deal in "psychological medicine," and offer for a consideration to restore broken down and exhausted nervous systems.

We are quite sure that any one of the students who attended the late session of the Phrenological Institute could indicate clearly ways in which brain capacity may be increased, in other words how a man of average cerebral development may train his faculties and enlarge their sphere of action. The one-sided men eminent in some one department of art or science or philosophy, are as a rule men especially endowed in one class of faculties, and who have trained or exercised those faculties while others necessary to harmony or balance of organization have been neglected. Such men are the product of ignorant or mistaken methods of education, and the teacher or observer who adds to his experience a knowledge of the phrenological system clearly understands the unhappy effect of attempts to train germinal faculties whose relation to physical function is entirely unknown to the teacher. It is to be regretted that so many of the learned entertain an inveterate prejudice against the theory of brain centres and localized faculties, notwithstanding its array of evidence, and turn their faces rigidly away from an inquiry into a system that would furnish them most valuable truths for practical use, aside from its doctrine of a complex brain.

STORE MEDICINE VS. THE DOCTOR.

THE rapid growth of the "patent medicine" trade in this country is amazing, and in contemplating it we are led to the emphatic conclusion that people at large prefer ready-made drug mixtures to the personal advice of physicians, and if strong efforts should be made by some of the more influential practitioners in New York, Pennsylvania and other states, to check by legislation the rapid advancement of medicine manufacture they are but the natural expression of men who are thrown upon their defense. We can not say that our sympathies are altogether with the doctors who condemn the druggists for their wholesale operations in patent physic; we think that the people should be protected against harm in this matter just as they should be protected from liability to injury by railway trains by the building of proper barriers along the line of the railway and setting watchmen at the crossings; but any one who looks into the medicine subject finds himself soon at a loss. How to discriminate fairly between the useful and the injurious sorts requires a degree of knowledge and impartiality that is not to be looked for in a legislative committee, and still less in a delegation representing one class of physicians, and those who give the most physic at that.

The matter is complicated much by the fact that hundreds of the prepared "remedies" bear testimonials purporting to come from high authority; names that are set conspicuously in the faculty lists of well-known medical schools. Hundreds of the manufacturers refer to Dr. this and Dr. that as having supplied a favorite prescription from

which the much lauded compound is prepared. And it is becoming common for well-known medicine makers to publish the ingredients of mixtures on the wrapper, so that those who buy it may, if they please, puzzle over the semi-Latin terms and antiquated signs that distinguish prescription writing.

Dr. Cobleigh says in the Cincinnati *Medical News*:

"It has reached a point that each manufacturing chemist thinks he must concoct and introduce something peculiarly his own to give him reputation and trade. All are seeking a monopoly of some proprietary nostrum which must yield a golden harvest of shekels. The only difference between most of these and the makers of regular patent medicines is one of degree—the latter advertise among the laity and administer their remedies direct; the former advertise among the profession and dose their patrons by proxy through our mediation."

In this age of differentiation the business of the pharmacist is quite separate from that of the doctor, and he who prescribes drugs must depend upon the chemist. The ever-widening fields of physiology, pathology and therapeutics demand all the medical student's time, and he is compelled to give but scant attention to the chemistry of the drugs he may expect to use. The manufacturer may adulterate and vitiate the most valuable and trusted articles and the doctor be none the wiser, or if he discovers it is powerless to prevent. This fact is not unknown to the public and tends to weaken confidence in a doctor's treatment.

We doubt not that most sensible people when really ill ask the advice of a physician, knowing that a trained man, whatever his school, knows more about

sickness and disease than they do, and will do what he can for their relief. But the great mass of people are not very wise in things concerning themselves, especially when "a little out of sorts" through indigestion, and so resort to the handy mixture that promises an infallible cure.

Another point we will briefly allude to. Some patent medicine venders are doing a little good in the way of awakening popular attention to hygienic processes. The rules for diet and living that are printed on the wrappers of thousands of "Cures" for catarrh, rheumatism, palpitation of the heart, neuralgia, backache, etc. are the real *remedies*, and should receive the credit for the cures that are wrought, and if "doctors" are multiplying far beyond the need of the community, we think that their best way to fight the manufacturers of and dealers in patent medicine would be to instruct the people in the facts of physiology and hygiene and so prove that the compositions of the wholesale druggist are for the most part worse than useless.

INFECTED OR SEPTIC MEDICINES.

RELATED to the above, and a fact that should compel people who are given to the use of ready-made mixtures is this: Recent microscopic investigation has shown that saline and acid solutions, tinctures, extracts, infusions and decoctions are fertile soil for the growth of a variety of plants. Probably nearly every thing in the way of liquid preparations standing in their wrappers on the druggists' shelves, and the tinctures, extracts, etc., that are not fresh will show vegetations under a moderately strong glass. These plants flourish at the expense of

any medicinal virtue that the mixture may be supposed to contain, and in themselves are tonic or poisonous elements, producing in many cases serious disturbances of the mucous membrane and often changing the diseases for which they are swallowed into something worse.

The reader who is skeptical with regard to the bacilli or bacteria theory may pooh-pooh what we say, but we only ask him to test the matter by the examination of some favorite mixture like one of the so-called nutritive tonics—a hypophosphitic syrup for instance that has been in use a short time. The convenient cough-syrup found in so many closets ready for administration to the children often fails of the expected effect and produces vomiting and diarrhea, owing to the development of plant life.

So serious is this matter of infected medicinal solutions that a physician who has given it careful attention declares it to be “a great commercial misfortune,” thinking doubtless of the loss it would occasion the pharmacists and general druggists did the public know it, and he predicts that a great change in the methods of prescribing is necessary, for the reason we have just given, and because every advance made by therapeutics discredits the use of the old and common forms of medicine, “the tinctures, infusions, decoctions, extracts, etc., as at present indiscriminately prescribed.”

If anything should weaken the confidence of the masses in medicaments it must be such an attitude on the part of physicians, and the sooner the truth is fairly told to the world the better for both sides.

A SIDE REVERIE.

ONCE in a while there comes a short note in language of this character: “Don’t want your magazine. Have no use for it,” and we feel hurt. Our Approbative sense is delicate, and perhaps the brain centre where it lies has considerable extension, and to have it rasped in this brusque fashion seems quite uncanny. Now when a subscriber wants to shake us off and he writes a letter of four pages detailing reasons for his action, we read all that he has to say, and read it attentively, and feel right kindly disposed toward him, and even sorry that he has been at such pains to hunt around for a plausible pretext. Of course, there is no compulsion about this reason business; we do not expect that every man of the few men subscribers who drop out of our list at the end of the year shall pen a laborious communication on the subject of why he does not want the PHRENOLOGICAL JOURNAL, etc. We should not like to be compelled to do such a thing any more than Jack Fallstaff did, even if “reasons were as plenty as blackberries,” and we can well understand Fallstaff’s position in that celebrated case, and think it very like the position of most of the Phrenological subscribers who decline its further visits.

We have heard of a good man—a genuine philanthropist of a periodical taker—who has his name on the books of twenty-two or twenty-three different magazines and papers. He does not read half of them; has not the time, yet can not order any stopped because he would not hurt the feelings of the editors. There’s a man worthy of your profoundest esteem and most faithful imitation, kind readers! Just think of what

a prodigious subscription list the PHRENOLOGICAL would run were its readers generally of this laudable type! With our maturity of nearly fifty years we should require more room for books and clerks than all the five stories of 753 Broadway could furnish, and *Le Petit Journal Pour Rire* or *The Century* or *Harper's New Monthly* would not approach our circulation.

But we forget that there is one immortal name on our books, a name that out-ranks in sublimity that of the hero of twenty-three subscriptions, and now that it occurs to our sad reflections we are cheered and buoyed up, and feel ready to "take arms against any sea of

troubles" come though it may in the occasional shape of a missive such as we quoted at the beginning. Ten years or so ago, a man ordered us to put him down for a *hundred years*, sending the amount in full to cover this extraordinary subscription. What an expression of confidence in the use and permanence of our Monthly! Readers, old and young, the case is yours, as the lawyers say to the jury, and after the example of many an upright judge we charge you to be profited by so noble an example, and never to say that you "don't want," or "can't use" the PHRENOLOGICAL JOURNAL.



To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories.

A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

VACILLATION OF MIND.—S. J. M.—One with an active nature and but little tendency to steady application finds it difficult to fix the attention on a subject that requires more than average thought and study for its comprehension. It is so easy too for such a phase of character to become more and more changeable, and finally from habit to be unfitted for work that demands settled and continuous effort. To such persons we say that they have much labor before them, to effect a desirable mental change, but if they will put themselves in such relations

as will the least excite or distract, will keep out of the channels where temptations thrust themselves in one's very face, and resolutely set to work in one line of employment, they may hope to improve their mental tone. It would be well for such persons to devote an hour or two each day to some study, say of a science or some department of literature—a language is a good thing, and persistently continue at it, a habit can be formed in this way that will be healthful in its effect.

WANTED A SOCIETY.—J. D. M.—Why not try to organize a Literary and Social Club, for the discussion of general topics and for the formation of a library and reading-room. You might arrange for the purpose a series of entertainments, have lectures, readings, some music, etc., to get the thing started. A few of the like-minded could form a reading or conversation club, and make a beginning in that way. A little perseverance would accomplish your object we think.

NUMBERS AND LETTERS.—HUB.—The organs on the charts marked with letters are of later discovery than those marked with numbers, and are mainly the result of American investigation. They were first designated by letters to indicate also that their demonstration was not considered complete; now however, they are generally accepted by Phrenological observers.

STUDY OF LAW.—P. C. F.—We can supply you with treatises of a general and special character, as you may need them, but think that in the outset of your course you should read a work like Hoffman's Introduction, (\$5) or Doctor and Student, (\$3) or Bishop's First Book. Then you can take up Blackstone's Commentaries, Kent's Commentaries and other authors on general topics. Of Blackstone and Kent there are abridged editions that will prove sufficient for your purpose. We should advise you to confer with some reputable lawyer, and get his advice concerning special treatises and your selection of practice books should have a relation to the place you intend to practice.

OYSTER GROWTH AND TEETH.—H. S. J.—It takes from five to seven years for an oyster to attain its full maturity, but they are considered large enough for edible purposes at two years. We would not advise you to use charcoal as a tooth-cleansing agent, it

scratches the enamels and injures the gums. Clean, tepid water with a good brush should be sufficient for every day purposes, and a little fine tooth-powder, applied on a bit of linen occasionally to clear off dark deposits that do not yield to the brush.

FLUID DRINKING.—P. R. M.—We would advise you to let nature decide the matter whatever the *Lancet* writer may say of "mischievous fads." If you find yourself and the members of your family in good health despite your disuse of water and other liquids you should take for granted that you don't need them. We know people who say that they never *drink* anything and have no inclination to do so. Of course we who use farinaceous foods largely, besides fruits and vegetables, get a deal of liquid into our systems daily, and don't need the "two quarts" that seems to be the standard of the *Lancet* writer for everybody. In fact drinking is mainly habit and the amount of liquid absolutely needed is more a matter of temperament than of any thing else.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

A Congratulatory Confession.

From a correspondent residing in Winnipeg, Manitoba, we have received an unusually interesting letter from which the following is taken:

FOWLER, WELLS & Co.

Dear Sirs:—A hundred thousand thanks for your good works; they have wrought wonders in my case by their good teachings. I began life different it appears to me from other boys; was studiously inclined, bashful, thoughtful, abhorred all mean and practical jokes, and generally appeared sullen in my natural reserve, so much so, that it brought upon me the sobriquet of "Growler" by my playfellows.

But I saw things as other boys did not see them. Nature was to me at home full of wonders and mysteries, and I depicted what I saw on paper, becoming quite an artist till I became the envy of those boys who thought they *could* draw. I remember the

scene in the drawing class, of the old drawing master with specs adjusted over his nose holding my pencil sketches before him at arms length, then close at hand, then giving his head a turn to one side in the direction of the imaginative faculties, and the pleasing smile on the old man's face with the final exclamation, "Capital!" He sometimes even went so far as to make use of the word "wonderful," which praise, however, never had the tendency to make me vain or conceited as I was not largely gifted with Approbativeness. I can also see the boys gathered around the old man and looking over his shoulders at the sketches in question, their different looks at me, and lastly, the sundry digs I received as the compensation for my artistic efforts. All these sketches were in pencil. I could not well manage color, a fact which has been proved by Phrenology since, as I have been told by Phrenologists that this faculty is small.

I was gradually drawn into bad habits, habits which were destined to drag me down until it did not seem then that I had the power to resist them. In my young days I was extremely sensitive to all impressions, and it was this sensitiveness when my footsteps were turned in a bad direction that only sent me on quicker toward destruction. To make a long story short, I had become an inveterate drinker; from turning against the very *smell* of liquor when a boy and even walking on the opposite side of the road to a bar-room. I began by tasting beer, then had a "stick" put in it, then I took sherry and port, then gin, whiskey, rum and brandy, finishing up with the latter, and taking it "neat." I have been drunk, I say it to my sorrow, on all the liquors given above and had become a pretty hard case, hailing with delight the time when work was over that I might join my boon companions at the bars; and even now the smell of brandy and other liquors tempts me strongly; but on such occasions I always recall intuitively the good teachings of your works. I never enter a bar on any pretence now and have become thoroughly temperate in every respect. I thank God for the day that I came across your books as through them alone the light came, but I must not forget that I always felt a terrible remorse, and often and often have retired to my room and prayed to God to help me. I am a firm believer in prayer and think that the information given

in the books published by you were the answers to those prayers. I am the possessor of two volumes of the PHRENOLOGICAL JOURNAL besides "New Physiognomy," "How to Read Character," "Fowler's Chart," "The Temperaments," and have read many others which have had a direct influence upon me. I have two Phrenological charts, one by Mr. Sizer, the other by Mr. O. S. Fowler; the former was from a photo sent you some years ago. Some time after sending it I happened to be in New York and called on Mr. Sizer, and got him to mark the size of my organs. After doing it, I gave instead of my own name my mother's maiden name (I did not quite like the idea in doing so; it made me feel rather mean but I wanted to test the truth of the chart, and thought perhaps by giving my own name he might recall the circumstances). What he said to me is now ringing in my ears, and he gave me some good advice, and when leaving his office he gave me a light slap on the back and said, "If I wanted to make a man of you, I'd make you a doctor." In the old chart is, "you would have made a very fine scholar in the sciences which go to make up a medical professor, you have so much sympathy, and would have been at home at the sick bed, etc." Professor Fowler has also given me good advice in his written chart. Both charts I prize highly and would advise any young man on the start of life to get one with the first money he saves, and he can easily save it if he tries, by cutting off his smoking, chewing or drinking expenses.

I have tried to recount the money I have thrown away, and if I had it safely invested, would to-day think myself well-off. I could have spent time profitably then in attending your lectures and becoming a member of the Phrenological Institute.

I am afraid I am tiring your patience by this long letter, but I have so much to thank you for that it seems to me you are my friends, and I want to be the friend of your firm in return.

A. M. W. G.

Prophetic Dreams. — Editor of PHRENOLOGICAL JOURNAL: *Apropos* to an article in the January PHRENOLOGICAL by C. H. Bliss, under the above heading. I have dreamed of meeting persons never heard of before, of conversations and business transactions under particular surroundings, and in some instances in places I had never been before, that have afterwards

been literally verified. Some of these events have been very similar in nature to the Alabama—Utah experience of your correspondent. These dreams have not occurred while I was asleep but, if I may so express it, were the imaginings of hours when I was awake and my mind in a restful state. I am not inclined to dream at night and these day imaginings have, by their after verification, puzzled my mind not a little. With Mr. Bliss I would be very glad to have an explanation of the phenomena.

MATT. W. ALDERSON.

Bozeman, Montana.

Useful to Them.—The JOURNAL advocates reform, ideas with which I sympathize, and that deserve wide dissemination; I owe it a debt of gratitude which I hope to be enabled some day to cancel more fully than I can now. Three years ago after six years of struggle with tobacco I finally gave it up. Much is due to your JOURNAL for this result, the conquest of a feeble spirit over a tyrannical habit. G. C., Texas.

EDITOR JOURNAL.

Phrenology has been truly a lamp to my feet and a guide to my pathway. It is but six years since I first became interested in it, and I feel that it is lighting up some of the dark places of my soul, that it is infusing new life into some of the faculties of my mind. It has given a new and I feel a right direction to my energies and my aspirations. I feel under great obligations to you for the benefit received from the study of Phrenology, and feel bound to make some mention of the fact to you.

G. M., Pittsburgh, Pa.

PERSONAL.

HORATIO SEYMOUR, ex-Governor of New York, died at Utica, on February 12th last. Mr. Seymour had come to be regarded as a sage whose utterances on public questions were of inestimable value not only to his party, but to the whole nation. He was nearly seventy-six years old, having been born May 31st, 1810. In 1841 he was elected to the Assembly of New York State, and in 1845 was made Speaker. In 1852 he was elected Governor of the State by a plurality of 22,596. In 1862 he was re-elected. During this term the draft riots occurred, and ex-Governor Seymour displayed considera-

ble personal courage and administrative capacity in the course he took in assisting to suppress them. In 1868, much against his will, he received the Democratic nomination for the Presidency. He was defeated by General Grant. From that time he remained in retirement declining all offers of political preferment.

Dr. P. W. Washlah, a man of eminent learning died in the Erie County almshouse recently. He was seventy-eight and formerly Professor of Greek and Hebrew in Bethany College, West Virginia, but the war excitement closed that college and he went to Ohio and afterward to Pennsylvania, where he practised medicine. He was not successful, being too much absorbed in scientific study to give proper attention to his patients. He was the master of ten languages, and the intimate friend and correspondent of Darwin, Victor Hugo, Alexander Dumas, and other eminent men. He made a voyage to the Sandwich Islands, and while there compiled a valuable Hawaiian Dictionary. During his career he made no provision for old age, and when he was no longer able to earn the little he needed for his support he was forced to become an inmate of the almshouse.

M. DE FREYONET is certainly entitled to a high place among modern statesmen of liberal and human views. He has successfully resisted the expulsion of the Bourbon Princes, and won a great victory for his Government in the confirmation of the Madagascar treaty by the Assembly. He is said to possess the art of winning his way without making hosts of enemies.

HOWARD UNIVERSITY, Washington, is entitled to notice because of the large number of its students who can earn their own support. In the Normal Department, forty in part or whole earn their living; in the Preparatory, twenty-five; in the College, eighteen; and in the Theological, forty-one; in all one hundred and twenty-four. The number is also large in the Medical and Law courses. Some work at trades, some are waiters in hotels and boarding houses, some teach, some pick up odd jobs, some preach to churches and some act as Government clerks. As these young men have to work hard for their education they will probably know how to use it when they have been graduated.

WISDOM.

—
 "Think truly, and thy thought
 Shall be a fruitful seed."
 —

Our souls much farther than our eyes can see.—*Michael Drayton.*

TALENT is some one faculty unusually developed; genius commands the exercise of many faculties at a high tension.

TEMPERANCE is corporal piety; it is the preservation of divine order in the body.—*Parker.*

The Persians say of noisy, unreasonable talk, "I hear the sound of a millstone, but I see no meal."

To love is to admire with the heart; to admire is to love with the mind.—*T. Gautier.*

We make too little of what we say of others, and a great deal too much of what they say of us.

The hardest useful labor is less exhausting, in the long run, than exciting pleasures as most of their devotees in middle life sadly confess.

To be idle and be poor have ever been reproaches; and therefore every man endeavors with his utmost care to hide his poverty from others, and his idleness from himself.—*Dr. Johnson.*

After a tongue has once got the knack of lying, it is not to be imagined how impossible it is almost to reclaim it. Whence it comes to pass that we see some men, who are otherwise very honest, subject to this vice.—*Montaigne.*

 MIRTH.

—
 "A little nonsense now and then,
 Is relished by the wisest men."
 —

A little girl seeing her father, who was a lawyer, honing his razor, said: "Pa, is that the knife you sharpen your cheek with?"

"Why, Brown, how short your coat is," said Jones one day to Brown, who solemnly replied: "Yes, but it will be long enough before I get another."

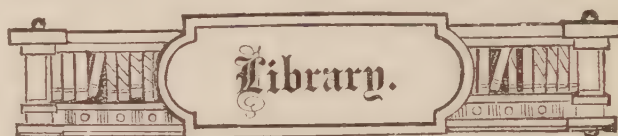
Cræsus Beckworthy, Sr., (to Mr. Rusker De Vere, art critic.)—"Now, that's what I call a fine picture; shows remarkable talent. My daughter painted that, sir, and I would not take \$200 for it. Why, the paint on it cost \$150."

An aged Christian woman was asked, "Are you never troubled by the devil, that you are always so cheerful?" "Oh, yes, he often comes to the door, but I never bid him come in, or give him a stool to sit on."

Love on his errand bound to go
 Can swim the flood and wade through
 snow;
 Where way is none, 'twill creep and
 wind,
 And eat through Alps its home to find
 EMERSON.

"Oh," exclaimed Miss Dubwell, what a clever man that Mr. Fogg is. He is really quite a physiognomist. I was telling him last evening that I had become quite proficient in painting, and he said: 'I am sure of it, madame; your face shows it.'"

Chorus of familiars "Indeed!"



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

LET IT ALONE AND IT WON'T HURT YOU.
 By Edward Carswell, author of "The Temperance Alphabet," etc., 12mo., cloth, Price \$1.25. New York National Temperance Society.

The author of this striking book needs no instruction to the reader, for his mission ardently pursued the past ten or more years has made him well known wherever the idea of reform has been discussed. Mr. Carswell's character is specially marked for buoyancy and versatility and his work on the platform and in literature is thoroughly pervaded by those agreeable elements. He tells us the reason for writing this book in a short preface; that he had been told so often to mind his own business, that if people wanted to drink that was their affair and not his, and if the stuff was bad he was not compelled to drink it. So he was set to thinking and went to work with some practical and true incidents in mind to prepare the book. He has made up what seems to us a really successful temperance

story, or perhaps it would be better to say a story that should have a successful run and scatter its good thoughts broad-cast.

ST. NICHOLAS SONGS, WITH ILLUSTRATIONS, Edited by WALDO S. PRATT, 4mo., pp. 190, Century Co., New York.

Arguing wisely, that, many of the poems given to the eager public in *St. Nicholas* are worthy of an enduring setting as tuneful gems; the Century Co. have selected a number of the merriest and quaintest and placed them in the hands of a galaxy of eminent as well as popular composers. Since first that exquisite song "The Sing-away Bird" by Lucy Larcom was published we have hoped that some artist would set it to music as rich and soulful as the words. The wish is gratified at length, and surely Harrison Millard has never had a pleasanter task or acquitted himself with honors more deserved than in his partnership with Miss Larcom.

The book while artistic in finish, is made with reference to probable use, neat, plain, strong and of the best materials. The inner pages of the cover are filled with cherub heads of the finest possible designing, printed in gold on tinted paper. The editor frankly admits that his task has been a pleasant one. Who can doubt it?

STATES IN INEBRIETY, a paper read at the semi-annual meeting of the American Association for the cure of Inebriety, Brooklyn, New York. By T. D. Crothers, M. D. Superintendent of Walnut, Lodge, Hartford, Conn.

EDITORIAL REPRINTS FROM THE JOURNAL OF INEBRIETY, T. D. CROTHERS, EDITOR, These pamphlets received from Dr. Crothers who is a careful student of the phenomena of Inebriety are worth the careful reading of all who would understand the physiological principles involved in a condition affecting thousands of our people, and which seems indeed to be extending its blighting influence rapidly.

EIGHTH ANNUAL REPORT OF THE COMMISSIONERS OF PRISONS ON THE REFORMATORY PRISON FOR WOMEN, with the annual reports of the Superintendent and other officers for the year ending September 30, 1885. An interesting exhibit of a well conducted Massachusetts institution.

NINETEENTH ANNUAL REPORT FOR THE HOME OF THE INCURABLES, NEW YORK CITY.

THE EDENIC DIET, THE PATH TO LIFE AND FREEDOM, published by ISAAC AND SARAH RUMFORD, Oakland, Cal. Is a warm plea in behalf of that form of vegetarianism which has recently found supporters in this

country, known by term "Edenic" and which has been already noted in the JOURNAL. This diet is food eaten in the natural condition, generally untouched by fire.

POULTRY FOR THE MARKET AND POULTRY FOR PROFIT: twelve articles by FANNY FIELD compiled by R. B. MITCHELL; Price 25 cents; published by the author at Chicago.

An interesting little statement that must be very encouraging to those who think of going into the chicken business with a purpose to work, not play.

MIND IN NATURE; volume first, a neatly bound exhibit of the first year of a novel attempt in periodical literature; scouting along the border land of the unknown, it invites the attention of many curious and thoughtful people. Price \$1.25.

OGILVIE'S POPULAR READING, No. 27, contains as usual several complete stories by popular authors, Price 30 cents.

ANNUAL REPORT OF BOARD OF MANAGERS OF THE NEW YORK STATE REFORMATORY AT ELMIRA, the year ending September, 1885. This always possesses much interest to those interested in the attempts to reclaim the vicious because its management is deemed as ranking at the head of such institutions.

THE MARCH NUMBER OF LIPPINCOTT'S MONTHLY MAGAZINE, gives liberal instalments of two stories "Song-Games and Myth-Dramas at Washington," a study of the rhymes and games current among the children at the National Capitol. "The American Play," "The One Pioneer of Tierra del Fuego," a narrative of a little known episode in modern travel, are those other titles that will attract special attention.

PUBLICATIONS RECEIVED.

THE March number of *The English Pulpit of To-day* contains sermons by Canon Knox-Little, Dr. MacLaren, Bishop Lightfoot, Archbishop Benson, Dr. Parker, and others together with the usual departments of prayer-meeting talks, sermon outlines and reviews. Yearly \$1.50; Clergymen \$1.00.

A. E. ROSE, Westfield, N. Y.

THE CHRONICLE OF AUGUSTA, GA., comes to us in a Centennial edition of 24 pages, having completed its hundred years of existence in May last. The history of its rise and progress is interesting and reliable.

THE POPULAR SCIENCE MONTHLY FOR MARCH, supplies its readers with a good list of papers—several indicating original research that has produced useful research.

The titles "Discrimination in Railway Rates," "Health and Sex in Higher Education," "Influence of Inventions," "Infancy in the City" are worthy of thoughtful reading. The author of "A Thinking Machine" shows that he is given to extreme romancing in his scientific writing as in his fiction.—D. Appleton & Co., New York.

HARPER'S MAGAZINE FOR MARCH, has a finely decorated description of the celebrated gun-making establishment or rather town of the Krupps at Essen, Germany, besides a review of an African expedition, a Central Asian sketch, a sprightly picture of Cape Breton people, a vivid description of the City of Cleveland finely illustrated, and other features, that make up a number of superior excellence.

PUDDINGS AND DAINTY DESSERTS, With this title Mr. Thomas J. Murray claims our notice again in a handy little collection of recipes, drawn largely from his own experience. The *bon vivant* and gourmet, and those who like what people usually call "good things," will welcome this production of gastronomic skill, if hygienists on the other hand assume toward it an air of lofty disdain. Price 50 cents White, Stokes & Allen, New York.

ON THE PHYSIOLOGY OF THE BRAIN, AND ITS RELATIONS IN HEALTH AND DISEASE TO THE FACULTIES OF THE MIND. By H. A. Buttolph M. D. Reprint from AMERICAN JOURNAL OF INSANITY. A fresh contribution to the literature of mental physiology based on the observations of forty years, by an eminent expert in diseases of the mind—and confirmatory in many respects of the facts of Phrenology.

THE MARCH NUMBER OF THE HOMILETIC, REVIEW, as a whole, eclipses former issues, and presents an array of timely and important subjects, discussed by distinguished writers, among them: Prof. E. C. Bissell, and R. S. Storrs, D. D.; Funk & Wagnalls, New York.

HOUSEHOLD RECEIPTS.—Another compilation for the toilette as well as cuisine the editor informs us, and designed to meet the need of "those who regard economy as well as excellence." We might question the point of "economy" on the score of the liberal prescriptions of eggs, butter, extracts, spices and wine; and as to "excellence" we fear

that a dietetic authority would impute to most of the preparations a tendency to stomachie derangement. Price 25 cents, Burnett & Co., Boston.

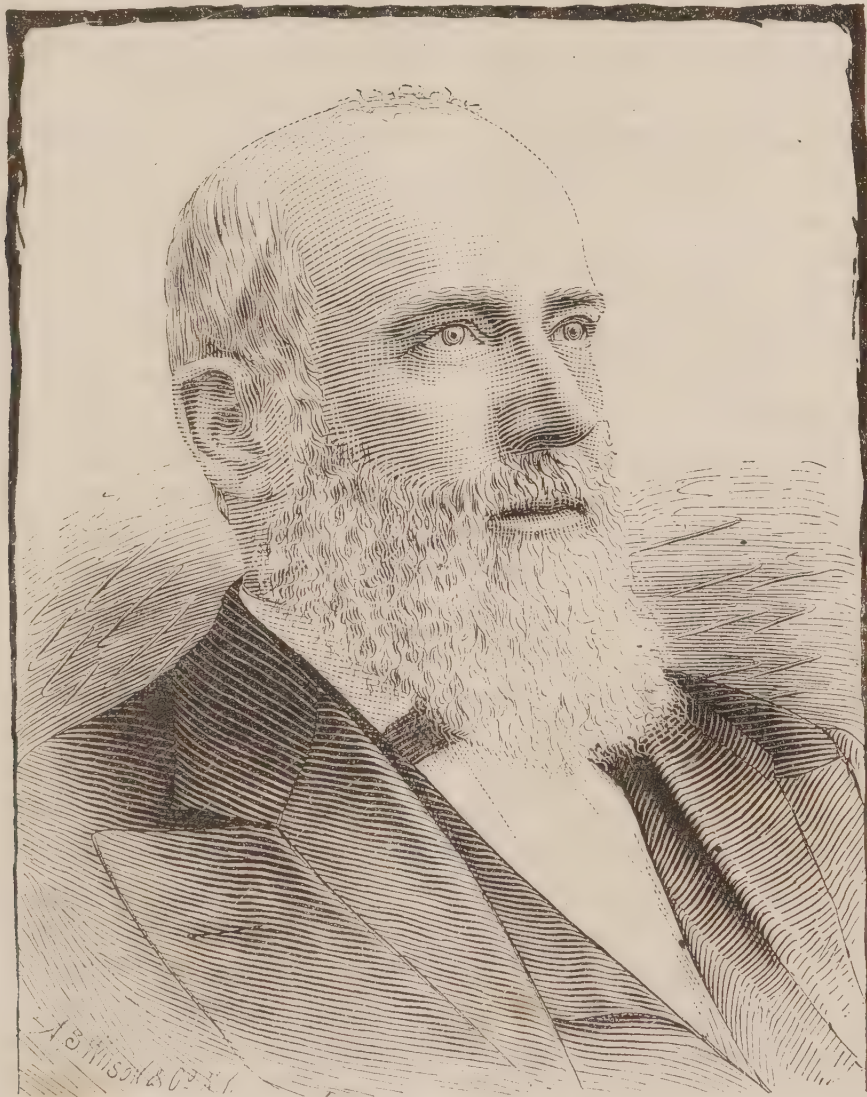
THE CENTURY MAGAZINE FOR MARCH, is rich with choice artistic effects, and foreign travel and home history make up the substance of its more interesting letter press. We have for instance "Italy," from a Tricycle with illustrations. "City Dwellings" in which Boston, New York, and Washington are conspicuous, "Shiloh Reviewed" by Gen. Buell, and other "War" articles that occupy liberal space; and a variety of current topics are discussed by writers of well known ability.

LOCAL OFFICIAL POSTAL GUIDE FOR THE CITIES OF NEW YORK AND BROOKLYN.—We have received a late number of this convenient assistant from A. M. May & Co.

BEES AND HONEY.—Those interested in the insect that makes honey for our tables can consult Roat's Illustrated Catalogue and Price List—Medina, Ohio.

CURRENT EXCHANGES RECEIVED.

THE CENTRAL LAW JOURNAL, John D. Parsons, Jr., Albany; The Commercial Traveller's Rail-Road Guide and Hotel Directory, E. Nickerson & Co., Boston; The Overland Monthly, San Francisco Cal.; Truth Seeker Annual, 1886, New York; Queries, Sherrill & Co., Buffalo, N. Y.; Southern Cultivator, Atlanta, Ga.; Canadian Pharmaceutical Journal; Leisure Hours, E. Records & Co., New York; Christian Thought, W. B. Ketcham, New York; Journal of Heredity, Chicago Ill.; Albany Medical Annals; Archives of Dentistry, Chambers & Co.; St. Louis Medical Journal; Faithist's Calendar; Literary Life; Manufacturer and Builder, New York; The New North West, Duniway Publishing Co. Portland Oregon; Le Progrès Medical, Paris, France; The Hahnemannian Monthly, Philadelphia, The Georgia Medical Journal, Atlanta; The Critic, New York; The Therapeutic Gazette, G. S. Davis, Detroit Mich.; The Sanitarian, A. N. Bell, M. D., New York; The Eclectic Magazine of Foreign Literature, E. R. Pelton, New York; The Medical Current, Chicago; Ohio Educational Monthly, Akron, Ohio; The Poultry Monthly, Albany, N. Y.; Outing, New York; Western Lancet, San Francisco, Cal.; The Children's Friend, Philadelphia, Pa.; Harper's Young People, New York.



ROBERT GRAHAM.

PRESIDENT "COLLEGE OF THE BIBLE," KENTUCKY UNIVERSITY.

THIS portrait is an interesting study ; the head is large as compared with the face, and the temperament seems favorable to health, and especially to mental clearness and vigor. We judge that he is more indebted to his mother for his temperament and the type of his mental quality than to his

father ; that his feelings are quick, intense and yet delicate ; that he is sensitiveness personified, yet backed up by resolution and power.

In that face there are indications of bravery, manly earnestness, a purpose that is not balked, and a progress that will not be very much hindered ; that

he has singleness of purpose and directness of effort, and a certain kind of majestic stateliness, but rather of the mental than of the physical type. People feel more the cogency of his reasoning and the clearness and compactness and vigor of his statements than they feel his physical power. If he were in a controversy among strange, rude men, and he could catch the eye of one of them, he would talk to him in a manner that would bring him to submission without stopping to consider which was the stronger man. People in other words feel bound to conform to his wishes without considering whether he is able to carry out his purposes by main strength. If he were a teacher and weighed 110 lbs. he would talk to a boy that weighed 130 in such a way as to win the victory, "not by might nor by power," but by a certain "spirit" of intellectual and moral force. If he were a lawyer and before a jury, he would make the logic and the history of his case glow with light, and the jury would feel inclined to follow him to his conclusions and bring in a verdict accordingly.

He has very strong moral development, and a man with his intellectual and moral force is not likely to be talking strongly on the wrong side; he will choose the right side and then talk so clearly and vigorously that there will seem to be but one way about it.

The eye is full, and stands out distinctly, indicating freedom of speech and fullness of statement. The upper part of his forehead is very massive, showing a cultivated, reasoning mind. Observe the great length from the opening of the ear to the front part of the head; this length of line indicates intellectuality; then the squareness, highness and massiveness of the forehead show amplitude of intellectual development.

The top of the head is well elevated and broadly expanded; it is not only broad but long on the top, showing the moral and religious organs to great ad-

vantage. His Benevolence is shown by the height above the corner of the eye to the centre of the top of the head, and indicates benevolence in an extraordinary degree, consequently he will be likely to have the interest of the people at heart, and talk and work with a disinterestedness that will tell much on the listener.

The centre of the top of the head is high, showing an ample development of Veneration, and Conscientiousness, which gives width and elevation; the back part of the top of the head is also strong; hence justice, sympathy, reverence, integrity, veneration and philanthropy must lead in his work.

There does not seem to be a very strongly marked tendency to financial wisdom and skill; if he must be in business he would want to have fixed prices with no variation, and would want those prices to be so fair and reasonable that the best judges and sharpest critics could not call them in question.

His head is wide above and backward from the ears, showing courage, thoroughness, prudence, ambition and dignity.

He has the signs in the face of strong social affection, and we doubt not his back head is fully developed.

If the reader will study a "model" bust, or any Phrenological head, which may be found in nearly every number of the JOURNAL, he will see the amplitude of the anterior and top developments of this head, in the regions of the intellectual and moral developments, and thus be enabled to apply the appearance of this head with its fine organization, to heads in daily life with whom he may meet.

S.

ROBERT GRAHAM was born on the 14th of August, 1822, in the City of Liverpool, England. His parents were members of the Established Church, rigid Episcopalians, and their son was brought up in that communion. Before her marriage, his mother was a strict Methodist,

and, for a long time, a teacher in the Sunday-school. This circumstance, doubtless, always had an influence in making the family favorable to that sect. There were no decided religious impressions made on his mind in early youth. An observance of the forms and common morality of the Established Church was all that was aimed at in the family. From earliest recollection, though full of fun and frolic, he was easily moved by religious instruction, due probably to a strong imagination, united with what might be called a religious organization.

In the winter of 1836—37, being then only fourteen years of age, he was deeply impressed with the importance of religion, at a protracted meeting among the Methodist Protestants in Alleghany City, Penn., under the ministry of Rev. John Brown, and joined the Church on probation, being admitted to full fellowship at the expiration of six months.

In the fall of 1838 he was made acquainted with the congregation of Disciples, or Cambellites, as they were sometimes called in Alleghany City, Penn., through Mr. William Baxter, who had left the Church of which he was a member and had united with the Disciples. He was thus brought to review the grounds of his religious belief. He examined the Scriptures with special reference to the baptismal controversy and kindred subjects, and after much discussion with Mr. Baxter, and a candid hearing of Elder Samuel Church, then the public teacher of the Christian Congregation in Alleghany City, he became convinced of the truth as held by the Disciples.

At that time he was an apprentice for five years, learning the art and mystery of house-carpentry, in the City of Pittsburgh, Penn. He had a great passion for books; and, to acquire an education he attended night-school during the winter, and, by industry and economy collected quite a library of useful and entertaining books. He applied himself with great assiduity to history,

belles-lettres, Bible criticism, general literature, and science, and joined a private association of young men to study the Latin language and literature. About this time the young men of the congregation formed the "Webster Literary Society," which met once a week in the Church. Mr. Graham became a zealous and active member of this organization, participating in its debates and other exercises with great pleasure and profit. It flourished about four years. He writes: "I here record my testimony in favor of such societies when properly conducted. Many besides myself have reason to think gratefully of that society."

Having completed his apprenticeship with satisfaction to his employer, he continued in his service as a journeyman. Occasionally he would take part in the exercises of the social meetings of the Church, and began to exhort in public. In the winter of 1842 his employer failed in business, and he not only was thrown out of work, but lost his all, accumulated in the employer's hands. At the instance of Elder Church he visited Bethany College, and conferred with Mr. Cambell with reference to being employed in the college buildings, not then completed.

At Mr. Cambell's suggestion he entered the college as a student on the 1st of January, 1843. In the following year he began to preach for the Church at Dutch Fork, seven miles from Bethany, and continued to labor for them on the Lord's day for three years. He supported himself at college by the sale of his library, carpenter's tools, the small salary he received for preaching, and advances made by Mr. Cambell. These last were liberal and generous, and were refunded in full, with interest, in May, 1854.

While a student at Bethany he was married to Miss Maria Thornley, of Alleghany City, Penn., on the 24th of December, 1844. She is of English birth, but, like himself, was brought to the

United States in childhood. She has been the faithful partner of all his joys and sorrows, and the mother of nine children, only three of whom now live, the others, excepting the eldest daughter, Mrs. Talbott, who has recently passed away, dying in early infancy.

Robert Graham was graduated on the 4th of July, 1847, in the same class with A. R. Benton, a professor in the University at Indianapolis, between whom and himself the first honor was divided, he delivering the Greek, and Graham the Latin salutatory. On the 18th of December, 1847, leaving his family in Alleghany City, he started for Little Rock, the capital of Arkansas, on a collecting tour, acting as Mr. Campbell's general agent for Arkansas, Louisiana, Mississippi and Alabama. This tour continued nine months, during which time he traversed a great part of these States, preaching the Word, advocating the claims of Bethany College, collecting for the *Millennial Harbinger*, and becoming extensively known among the churches in the South-west.

It was during this tour that he was met by Elder J. T. Johnson, at Fayetteville, Ark., where they labored in a protracted meeting of great interest, resulting in the establishment of a fine Church, and the laying of a broad foundation for future influence. Soon after his return to the East, he received and accepted an invitation to become pastor of the Church in Fayetteville, arriving there with his family in January, 1849. Here he eventually established the Arkansas College, of which he became President.

In 1858, he was unanimously elected to the chair of Belles-Lettres and History in Kentucky University, which he accepted, taking charge of his department at its opening in September, 1859, and continuing one session, with great acceptance to the University. While in the University, a gentleman of great excellence and piety was sent from Louisiana to Harrodsburgh, to induce him to return to his former home, and give

himself to missionary work in the South, and become the General Agent of the Southern Christian Missionary Society.

This proposition was accepted, and, resigning the professorship, he returned to Fayetteville in 1860, preparatory to entering on the work. The whole arrangement, however, failed on account of the breaking out of our national difficulties.

Being a Union man without an "if," he suffered the loss of all his accumulations, about \$10,000, and after many tribulations arrived in Cincinnati in the fall of 1862, and was immediately invited to the charge of the First Christian Church, which he accepted. In November of the same year, his family came North under the protection of General Schofield's army, and were reunited with him in Cincinnati.

In 1864 he resigned his position in Cincinnati, and removed with his family to California where he was engaged in preaching and teaching until 1866, when he returned Eastward, and was soon afterward elected unanimously Presiding officer of the College of Arts, and Professor of the school of English language and Literature in Kentucky University. He accepted the post, and has continued to the present time in that institution, occupying for several years past the position of President of "The College of the Bible."

ROBERT GRAHAM is a heavy-set man, inclining to corpulency, and, while of low stature, weighs about one hundred and eighty pounds. He has all the external indications of a fine, healthy, physical constitution. With a bright, florid complexion, a brain largely developed in the intellectual and moral region, with a large, prominent, light-blue eye, and the orator's mouth, he is able and exceedingly fluent in speech on almost every topic, whether before an audience or in the private circle. His language and style are so highly finished, in the "dotting of every *i*" and the "crossing of every *t*," and yet so per-

fectly familiar and "off-hand," that the stranger critic is apt to suspect that the whole is memorized. But, aside from a few brief notes in the course of his *thorough* preparation, he does not write **at**

all, that being too slow a process for his readiness of thought and speech. He stands in the front rank among the able preachers of his denomination, and we hope that he will remain there. T.

FAMILIAR TALKS WITH OUR YOUNG READERS.—NO. 5.

ON COLOR AND ORDER.

DO you realize my young friends how much work there is done by the brain for the mind in the simple stages of perception—how many different elements enter into what is called a simple conception of an object? Take a common, everyday thing, a house for example. Oh, you say, we know all about that. Yes, you may know all

(1) the thing itself as an existence, or its individuality, (2) its form, (3) its size, (4) its color, (5) its number, but one, yet distinguished by that as fact or quality, (6) its locality, distinguished we say in this respect simply by its place above or below the plane of our standpoint or horizon. All these qualities or constituents are essential to a clear idea of a house as



THE YOUNG ARTIST.—PAINTIN' DOGGIE.

about it, but if we think for a little time of the many important parts or constituents of the picture that a house makes upon the retina of the eye, and which are recognized unconsciously from habit by the mind, we find that our knowledge of a house is quite a complex affair. Now what is to us a simple idea or mental picture of a house is made up of not less than six different impressions, viz :

a simple object. And by merely bringing them in this way to your notice, it is made sufficiently clear, I think, why nature develops the perceptive organs first in the growth of the brain.

I imagine that the little child experiences pleasure as one by one of these organs come into the exercise of its function, each adding a new capability to the budding intelligence ; and when the

organ of Color begins to act there must be a great amount of pleasure, as all through our lives this faculty gives us enjoyment because of its diversified range. What boy or girl is there of normal constitution who did not hail the time when he or she became possessor of a box of water colors and a brush? and what fun there was in daubing bits of paper with patches of blue, green and yellow! or if they got hold of a book with pictures what delight was had in putting all sorts of color on them! In the illustration of the little fellow putting on some extra touches not contemplated by the artist we have an example of a child's fondness for color. Doggie, he

it is not an easy organ to measure, and I should not advise my young student who aspires to honors phrenological to be very sanguine in his judgment of its size and power. When large, the arch of the brow over the eyes is well-rounded and full; the eyebrows seem to stand out rather prominently and curve upward and backward, in the middle. In the portrait of M. de Neuville, the French artist—the organ is very well shown. He is distinguished for his military pieces, taken for the most part from scenes in the late French and German war. I have seen two or three of them, and for coloring and spirit they are very striking.

As you consider the portrait, you can see for yourselves that M. Neuville, if it is much like him, must be a man of spirit and activity, quick to perceive and quick to judge, and carry into effect whatever he decides upon. Of course, people vary much in their ideas of color, some almost lacking the sense, while others are very sharp in detecting slight differences in shading or hue. Then too, like all the other perceptive organs, Color is subject to culture and modified by the operation of other organs. Uneducated and crude minds are fond of bright, glaring colors and strong contrasts, as a rule, while the cultivated mind—that which is the growth of our best civilization appreciates soft tints, that blend in a harmonious and delicate way.

It has been found by careful examinations that women are much better endowed with this organ than men. You have heard of people who are "color blind," that is, unable to see the difference between two, three or more colors. I have known persons who could not distinguish between red, or yellow, and green, or between blue and green, and it is believed that many accidents on land and sea have occurred because the engineer or lookout was color-blind without knowing it. Dr. Jeffries, of Boston, who has given a great deal of attention



M. DE NEUVILLE. COLOR LARGE.

thinks would be improved by his efforts, and so he takes papa's palette and brush and plasters on the paint where he thinks it will do the most good, and can not understand why poor doggie loses eyes and ears under the operation.

The organ of Color lies next to Weight in the folds of the brain at the lower margin of the frontal lobe, and is close to the middle part of the bone ridge over the eyeball. On account of its situation,

to this subject, says that about one male in twenty-five is in some respect color-blind ; but among females the defect is rare. As women from girlhood use this faculty very much more than men, it is but natural that it should be better developed as an average in them, and it certainly appears larger in the head.

Among artists we can see differences in this sense, and as a fact it may be said, that while Form, Size, Locality, Constructiveness and Ideality may be generally large in the brain of artists, Color is found often but moderate, and such are distinguished, if distinguished at all, for skill and accuracy in drawing or for the originality and sentiment of their designs. In such an artist as Doré, it is the drawing and the originality of the ideas put into the drawing that we admire, while in such a master as Turner, it is the management of colors that pleases. When asked how he mixed his colors, Turner is said to have answered, "with brains," and he told the substantial truth. His strong faculty of Color was the element in his work that made him famous. You will see here that a single, apparently small ingredient of the mental economy may be the thing that lies at the basis of fame and fortune.

ORDER.

The study of this organ and quality in our thinking machine will now engage us for a little space. In the brain its place is next to Color, and if large the forehead appears wide at the brows ; the outer ridge at the corner over the eyes is square or prominent and rounding. Generally persons with large Order show a wedge-shaped forehead the broadest part or base of the wedge being at the eyebrows. The portrait of the Czarina of Russia indicates the possession of a good share of Order, and there is in the expression of her face as a whole a thoughtful, careful, practical vein. I could not say of such a face that it shows any tendency to the gay and frivolous, but is staid, circumspect and earnest beyond the average of

women born amid royal scenes. I have no doubt that she is a good manager of such of the domestic affairs in her household as Russian customs place under her charge.

No organ so well displays itself in the everyday habits of people young and old as Order. The boy or girl who has it large is neat, regular and precise by instinct. I have seen little ones of four or five years old push the chairs, that their



CZARINA OF RUSSIA. ORDER LARGE.

elders had left scattered about, into their proper places, busy themselves in picking up bits of paper or thread that were lying on the floor, and seem to enjoy the business of tidying up as much as they did a game. The girl whose Order is large shows real distress at the carelessness and looseness of others ; she wants everything "just so" around her. She is clean and neat in her person, prompt at school time and all times, and her books and playthings when a year old look fresh and trim. But the girl without Order, how well you know her ways ? Everything she does is characterized by loose ends. Does she sit down to read a book, she does so without much regard

to attitude, she lolls with feet and hands in awkward shapes. Something attracts her attention; she jumps up, throws down the book, it matters not where, and rushes off. Her room is in a state of confusion, closets, drawers, bureau, everything, are tumbled and mixed. In a hurry, and she usually does everything that has utility at all in it in a hurry, she can not find her gloves or her umbrella, or hat or pencil, or handkerchief, and goes around clamoring for them. Oh, my young friend, you know this kind of girl well, and I hope that if you have any disposition to imitate her that you will be warned by the unlovely pic-

ture have but to look at the two women to see at a glance how they correspond with their respective surroundings.

It must be owned, I think, by all who look at the matter seriously, that we fathers and mothers are not true to our duty in teaching our children habits of order. We scold and scold and perhaps whip—they say that orderly people are given to scolding—when we should instruct and train the children how to be neat, and what to do with this or that. Children should be shown the proper way to treat their toys, how to dress, and given certain little offices or duties.

“Imagine” say the authors of “Heads



TWO HOUSEKEEPING INTERIORS ILLUSTRATED.

ture she makes and try to form habits of neatness and method. If you wish to be happy, to be on pleasant terms with others, to command their respect: if you want a happy home and a future of success and comfort you must be orderly in your everyday life. Disorder and carelessness will break the strongest bonds. The common endowments of friendship and love can not stand the wear of their constant infliction. The picture contrasts the orderly and disorderly housekeeper, and it seems to me that the artist has done well. He evidently knows the difference from observation, and you

and Faces,” “the world without this faculty, everything that a man owns thrown in a heap; it is sheltered by his roof, it is inclosed by the walls of his house, it is sustained by the floors, it is out of the reach of burglars, but without order; how can he get what he wants without loss of time and damage of things? But that is illustrated when, in the city, people have to pull up and move, and cart their furniture from one house to another and put it into the rooms, helter-skelter, just as they can, and the orderly family will say, ‘I don’t know when we shall ever get our things

in place,' and they will regulate one room after another till they have got all their household goods replaced, and then they begin to breathe freely, although they are wearied and tired and think moving is a bore ; it is more because of the disturbed Order than it is because the work is hard, but it is both, and therefore a double burden." EDITOR.

WHO IS THIS?

Say, who is this, comes down the aisles of Night!

With tender halo round his brow!

Yet with a look of by-gone suffering—

Before whom fiends of darkness bow?

Say, who is this, whom earth and seas confess,—

And angels come on earth to own!

Who conquered Death and every ill at once;

And earned the royal Victor's crown?

Say, who is this, to save our erring souls,

The cross, with all its shame, hath borne!

And giv'n us power to sing His gracious

• work,

Each future blessed Easter morn?

Say, who is this, who burst the bonds of Death?

The heavy bands of Death and Night!

Who, through the stony portals, greets the Day?

It is—it is the Prince of Light!

—GRACE H. HERR.

A CRITICISM AND A BRIEF REVIEW.

—"To sum it up it is the brain as a whole that thinks, and feels, and desires, and imagines, just as it is the body as a whole that walks, and digs, and dances. To locate, say, the faculty of language in a particular convolution of a particular hemisphere is almost as absurd, it seems to me, as to locate, say, the faculty of writing in the last joint of the right forefinger. Convolution and forefinger may be absolutely essential or indispensable for the proper performance of speech writing; but to say that is not to say that the function in question is there localized. The brain as a whole is the organ of mind, but there is no organ for the word Canonbury or for the proper perception of a Mrs. Pollock geranium."

—GRANT ALLEN.

The above, quoted by a Massachusetts newspaper is a specimen of what we sometimes see floating in the newspapers, although, it should be said, we see less of such stuff than formerly. In the descriptions of distinguished men and women, we now see in papers and magazines, it is not unusual to perceive that the leading principles of Phrenology are implied.

The body "as a whole," does not "walk," or "dig" or "dance." It has legs and feet for walking and dancing, hands and arms for digging, a nose for smelling, an eye for seeing, a stomach for digesting, and so on. It has no foot for taking a certain step, say toward Albany, neither has the mind a faculty for remembering a given word or for perceiving "a Mrs. Pollock geranium." That would be absurd. Nature is always rational and correspondential.

The body is a beautiful whole, but with a great deal of "localization." It has a number of organs in that one body, while one member can not say to another "I have no need of thee." Therefore, a man can be walking, singing, thinking, digesting, loving or hating, at the same moment. A cotton factory is in motion for instance, yet the "whole" factory is not required to card, or spin, or weave. There are machines for the respective operations.

It is not necessary there should be material divisions all running through the brain; only, that the different portions should possess different endowments. The optic and auditory nerves look alike, are about the same length, still the first convey sight, the second, sound. A similar remark might be made in respect to nerves of motion and nerves of sensation, bound up in the same sheath. There is no taste on the back of my hand; nevertheless, I am sure there is upon the upper side of my tongue, for so was I created. The reader's little daughter is attached to her doll, not by any particles of brain in her forehead, rather by a splendid development in the posterior section of her brain, for thus it pleased the Creator to endow her. L. H.

THE CONSTITUTIONAL BASIS OF CHARACTER.

THE BODY THE ORGAN OF THE MIND.

DOES disbelief in Phrenology imply a doubt about the possibility of learning anything of the powers and tendencies of the mind from a study of the constitution? Or is there an almost universal belief that Phrenology is simply a system of craniognomy, and that Phrenologists think of nothing but the size and form of the head? The course taken by amateurs indicates the latter supposition to be the true solution of the question, for the most of them, from the first, seem to think of nothing else.

Whether this be due to any defect in Phrenological literature, or whether it be inherent in the nature of the subject, it is in any case desirable to do whatever is possible to correct the error, and as "first impressions are lasting" it will be well to direct the attention of students, first, to that which they are prone to neglect.

The proposition "The brain is the organ of the mind" expresses but a part of the truth, and that which is unexpressed is of great importance.

Gradations of character may be found in one form of the head. For an illustration of this, notice the changes that occur under the influence of alcoholic drink. Contrast the calm, modest dignity which is natural, with the indiscrete talkativeness that occurs after the first glass of the irritant anæsthetic has been taken. The delicate, second thought that corrects the impulse to speech and action has been suppressed and the man gives utterance to thoughts common to all, and which need not be expressed, to injudicious, disagreeable, offensive or silly things. Another glass makes him quarrelsome and boastful, introducing a third character. A fourth comes later and is followed by a fifth, in which he manifests terror, delirium and coma, all by the same brain as its various, parts are appealed to by the different bodily conditions.

Characteristics similar to those which are thus transient in acute disease may be found permanent in health, or in chronic diseases, while different constitutional conditions, in structure, proportion of organic development, or of chemical composition are associated with well-marked traits of character.

A primary qualification for the study of Phrenology is a talent for understanding character, and this is possessed in very different degrees by persons in other respect equal. The stupidity of some persons in this direction is amazing; they will accept the most feeble attempt at imitating virtue as evidence of merit, or live in the family with a villain for years, and never doubt his goodness. One who is endowed with a high degree of talent for the discernment of the essential elements of character, will quickly avail himself of all the knowledge at his command that can aid him in his diagnosis.

An analysis of character into primary elements being omitted, or incorrectly accomplished, everything else can only result in confusion.

All voluntary communication of mind with mind is through the instrumentality of muscle as well as nerves and brain. If articulate language be the means, the numerous muscles of the vocal apparatus must be exercised; if through written language, muscles of the arm are demanded, muscular movements may become expressive in gestures, and the features of the face are capable of great significance of emotions, and demand muscular contractions and relaxations. How much are we to allow for the difference in the vigor of expression before we can determine what is the relative degree of thought?

Some men are very demonstrative of all their thoughts and feelings. They are like clocks without cases, with all their works exposed. They may think

more, or it may be very much less than some others who make very little display of what is going on within.

If we study the brain in regard to its form, structure, chemical composition and anatomical divisions, we at once discover the necessity of extending our investigations to other parts of the body to aid us in forming an opinion of the power and direction of its action. We are not considering what may be done, either now, or in the distant future by *post mortem* examinations of the brain. Our object is to arrive at a correct estimate, during life while the brain is beyond the reach of inspection.

The head is formed substantially by the brain. From the eye-brows all the way over to the nape of the neck the brain gives form to the skull, with a few exceptions that are well known and usually slight, as the frontal sinus, the zygomatic arch and the mastoid process; but the brain has various functions besides that of Ideation, and it is necessary to isolate them.

The weight of the brain of a man is on an average about three pounds; that of an elephant is said to be from eight to ten pounds, nearly three times as heavy. Were all of the brain appropriated to ideation the inference would be that the mind of the elephant is greatly superior to that of man. Very intelligent the elephant is and very teachable, but its great bulk of body, of muscles and of viscera appropriate a large amount of the brain to their uses. The brain of man also, has functions appropriated to the requirements of vegetable and animal life and health, and in some individuals, a much larger amount than in others. In the average man there is estimated to be about sixty pounds of muscle, all of which is under the control of the will and supplied with nerves connected with the brain, entering into its substance and constituting a portion of its mass. It is very evident there must be a difference in the amount of brain thus appropriated in

different persons, some of whom have a large muscular development and great skill as well as strength for all forms of movements, while others have very slight muscular developments and very feeble and awkward movements.

The influence of mental emotions upon the functions of the digestive apparatus demonstrates the nervous connection. It is a common occurrence for great anxiety to affect the health. Soldiers going into battle for the first time are in many instances affected with diarrhoea. Bad news after a full meal has been known to act promptly as an emesis, while the pleasing influence of comfort and hope are well understood to be of great advantage to health.

Scores of quack doctors, consciously or otherwise, make use of this fact, and turn the credulity of their dupes into a means of cure, and, as one of them said, they "do a great deal of good by preventing their patients from taking stronger medicines." Who has not known of "Cures" brought about by inert substances, by senseless manipulations, by "pow wowings" etc.!

Many reported cases are, doubtless, true, and they all cover one condition recognized as important in the cure of disease.

Thus is it clear that there is no gap between the brain of ideation and the nervous system that regulates the vital function, and it would be evident had the anatomists not traced, as they have, the fibres of the sympathetic nervous system into the cranium.

Analysis has discovered the fact that there is a larger proportion of water in the brains of infants than in those of adults. Some adults have an infantile quality of brain and they are often very interesting subjects, combining with the sensitiveness of infancy the intelligence and refinement of experience and culture; but without reference to the face or the body the condition of the brain could not be known, for while there is generally a temperamental form of the

brain it is not absolute, except in the opinion of that class of persons who name the temperaments from the form of the head, and they reasoning in a circle thus: "A Lymphatic temperament has a globular head, this man has a globular head, and therefore he has the Lymphatic temperament"—have at their command no other indication of character but the head, and might properly enough call themselves "craniognomists."

The brains of idiots have been found to contain less than the average amount of phosphates. To diagnose the quality of the brain in reference to this condition nature has provided the means in the seventh pair of cranial nerves, and the delicate muscles of the face; and she has done it so effectually that he who runs may read. The attempts of skeptics to entrap Phrenologists by putting the dress of a professional person upon a very dull man, and introducing him as the Rev. or Esq. So and So, or of putting a working man's suit upon a bright, scholarly man, were quite as amusing to the Phrenologist as to the acting party, yet, if the object had been to pass a member of one occupation off as a professor in another, supposed to be much higher, the task would not have been difficult, for men can be found in the shop whose true place is in the courtroom, and men in the pulpit who are better fitted to build stone-walls than to preach. The brain is dependent upon the digestive apparatus for sustenance, hence its functions will be affected—largely controlled by it. A badly nourished, anæmic brain can not sustain the vigor that another, of the same size and form, may do; indeed, the limit of mental power is more nearly represented by the healthfulness and vigor of the body than by the size of the brain, although neither alone is conclusive.

The minute structure of the brain suggests a well marked distinction in character. The cells which compose a large portion of the cortical substance are the source and seat of ideation, and

the fibres which originate or terminate in it and connect all parts of the brain, conveying the nervous influence to and fro, have a totally different function, yet not, as might be supposed, a negative one. Unlike the wires of an electric battery, which obstruct the current slightly, while they convey a portion of it, the nerve fibres augment the force of the current they receive, having an active function of their own.

On this condition a great variety in the manifestation of mind may appear. A brain in which the cell structure greatly predominates, having numerous and very deep sulci and relatively a small amount of white fibrous structure, may be supposed to sustain thoughtfulness, receptivity and comprehensiveness, while a reverse condition would indicate a more positive manifestation of an inferior mind.

If it were a question whether any external signs could make this distinction clear, one might be disposed to answer in the negative, but nothing is more apparent to the observer, who is in search of practical distinctions, than these of *thoughtfulness* and of *positiveness*; and it is of more importance to discern the characteristics than to know their histological causes.

These considerations are sufficient to teach us the importance of all parts of the body to the mind, either as organs to do its will or to administer to its support, and in either case as indices to character, disposition, force and talents.

So evident is this, that a degree of truth will be found in the most crude system of signs founded upon general appearances. Even the scales may give us some idea of a man's mind. The heavier a man the more mind, other things being equal. The great inequality, the frequent superiority of the organic quality of small persons, the disproportion of parts and the greater significance of some parts than of others do not altogether invalidate the first proposition. Who can not understand the significance

of the smile that flitted over the countenances of the congregation when the preacher, whose head scarcely appeared above the pulpit, read for his text, "Be not afraid, it is I!"

As in vegetable life plumpness of form indicates health and growth, so in the human body roundness indicates vigor of which the mind will partake.

The student of character is too apt to overlook the fact, evident in subjects of a strictly physical nature, that the lowest is of the first importance—the foundation before the dome. He takes it for granted that the head is more important than the stomach. Nature makes no such mistake. She produces billions of beings in the animal kingdom without heads and with stomachs, but not one head without a stomach. Horace Greely gave utterance to a very important truth when he said "The mind needs a body more than the body needs a mind." The first inspiration to whatever results in the noble, elevated and

beautiful flows from organs sustained by the nutritive function. A high degree of good health is necessary to a real and hearty love of Nature, to the enthusiasm which requires only a corresponding development of brain to manifest itself in poetry, art and the love of man. The gambols of lambs on the sunny hills in spring, and the playfulness of kittens or of children, are but expressions of an exquisite delight in life which prompts to the appreciation of all that is beautiful and good, and it is the union of this substratum of disposition with reason and the imagination that results in the higher faculties of man.

We should look for signs of character in the size and form of the body, in the proportions of the motive, vital and mental apparatus, in the face for the quality of the brain, and the variety of its mode of action, in the temperaments, as well as in the size and form of the head.

JOHN L. CAPEN, M.D.

BACKS AND CHARACTERS.

THE study of Physiognomy involves the entire man. The head and face are the chief parts of him but the body is necessary for a complete analysis. The limbs in their form and peculiarities of structure and attitude help toward a proper understanding of individual character. Pose has much to do with disposition; we form habits of standing and sitting and walking that show not a little of our weakness or strength to the skilled observer. An English writer has been studying backs and makes some points that seem reasonable. We find him discoursing thus in *Cassell's*:

"Will you introduce me to that lady? I like her back!" Many years ago in Scotland this was asked of a hostess one night when the evening circle were scattered about a drawing-room, and the man who spoke had not yet seen the lady's face. An introduction followed, a

friendship, a marriage. No doubt he was a discriminating man and knew that there is a character in backs.



A REFLECTIVE BACK.

For that matter, our character comes out all over us, willing or unwilling, and even in our handwriting. Lavater,

who was so wondrous wise in the looks of humankind, said that from a single finger we ought to be able to guess a whole individual. Perhaps we ought, but we seldom do, except in noticing the difference between the finger of refinement and a nutmeg-grater like the forefinger of the faithful "Peggotty." But the back—ah! there is the whole individual, an easy study—the whole of him, his figure and walk, his shoulders molded by the habits of his life, the carriage of the head, the wearing of the clothing. Face to face we see the man as he desires to be seen by us, but behind his back we take him by surprise, and catch sight of his character.

Follow the thoughtful man as he wanders through the streets, seeing nothing. He has polished his hat and tightened his umbrella to the last degree, not because he cared for the polish and the tightness, but because his mind was elsewhere when he risked brushing the nap off his hat and splitting the umbrella. While he walks his head and shoulders bend; one knows that his eyes seek the ground, just as one sees his feet linger upon it. In this manner it must have been that Macaulay walked in his famous night wanderings, when he traversed the London streets and saw nothing—a contrast to those other night walks of Charles Dickens, who trod the same streets and saw every thing, with head characteristically held back and slightly to one side—an energetic observer rather than a deep thinker.

Very different from what we may call the refined and intellectual back is the back of the broad and vulgar figure who struts past us as if he owned the street, or at least the footwalk, where he takes up half the space between his striding feet and the self-asserting umbrella. His glory is not in his mind or heart, but in his pocket. He would be always conscious of his purse, even if he had not his hand bulging out of the pocket where it lives—of course, one knows by his back that the pocket is bulging with the

proud possessions of a fat purse, and the knowledge of the banking account, and of all he might, could, would and should do in the world. He holds the impecunious crowd in contempt like the dust that he kicks before him. He has a habit of sticking up for his rights; even his collar sticks up, and his hair, to cor-



MR. MONEY BAGS.

respond with his inner self, is bristling up; but that does not matter for he can afford to wear a crooked hat. He thinks he can buy anything, from a picture, of which he knows nothing, to an elector, who knows nothing of him. At the front he might take us in—a hearty-looking, glad-to-see-you sort of man. But look at his back; he struts like a barn-door cock, and the cock is the more estimable biped.

The purse-proud man will never hand money out of that pocket for charity, unless he is pretty sure that there shall be a printed list of subscribers. Not so the wealthy man who has a heart above gold. Look at him—a back view—as he stands at a public meeting, called together at some time of calamity or need. He is sure to be there. If the hall is overcrowded you can see him standing, never complaining of the lack of seats; he is there for the comfort of others; he forgets his own. He is a large-hearted man, and everything about him is large. The big hands are only waiting behind him to give freely. The broad back can

bear a goodly share of others' burdens. The coat sits loosely, but not more loosely than fortune sits upon him, he would slip it off for another's need.

His gray locks are unshorn ; closeness of any kind is not in his nature and his head bends to give plenty of time and plenty of thought to all whom he could benefit. Such a man as this was once told that he had been giving to a rogue, and the answer was : " If he was a rogue that was his own lookout, not mine." In one sense, very true !

As for the back of the rogue himself, it is of infinite variety. If there were only one sort, we might all make what soldiers call a reconnaissance to the rear, and detect and outwit him ; but his name is legion. There is the sharp dealer of the business world who is remarkably spruce at the back ; and the adventurer of society who can bow like the first gentleman in Europe ; and ten thousand more varieties, from the welsher on the



THE BENEVOLENT BACK.

turf up to the gentleman who ought to be a Baronet, and who has lived for the last thirty years upon that statement and upon charitably collecting for the savages of Borrioboola. He could straighten his body if he liked, but his mind is fixed on curves of cunning. He and his principles are as crooked as wriggling eels ; he can press others to his will, too, as he presses his cane to a curve like himself.

His spare form is not the thin-bent back of the student. The back of a book-worm is another kind of bend—a curve to be respected. Nor is it the stoop of



THE ROGUISH BACK.

old age. And this reminds us that the back is an index of age as well as of character. The small child stands a square upright, sturdy piece of humanity. The man grows straight to his full height, then his shadow broadens ; then his shoulders come forward and his head goes down. He is the dried and shriveled leaf that bends toward itself and curls to diminished size before it mingles with the dust of a vanished summer.

But we must not grow melancholy, though we can never see a smile at the



BACK OF WEAKNESS.

back. Who is the individual that comes shuffling by, knocking his knees and dragging his shoes, and losing his prop-

erty from sheer inability to remember that he has got it? There is an old saying—a significant one, to describe a man of weak character—that he has “no backbone in him.”

We are afraid there is not much backbone in the man who walks as if not quite sure where he is going to, who drops his letters, and never cares to strengthen his shoulders. Follow him, and note how his hat points backward; and you know from the angles to which

that the man with such a back sings comic songs; equally certain that he never knows when people cease to laugh at the song and begin to laugh at himself. One is glad for his own sake that there is much mirth in the possessor of those whisker-points and that hat set backward; but it is weak spirit of the Macawber order, and soon dissolves in tears. The poor fellow would not be half bad but he has “no backbone,” and a sprightly, good-natured mollusk has a poor time of it up on the land among the vertebrate animals.

But there is such a thing as having too much backbone, and that is rather worse than having too little. When a man has too much backbone, his heart is not, so the people say, “in the right place,” sometimes there is no room for a heart at all. Now, there are some men



FULL DRESS BACK.

he has set his hat and his whiskers that, seen front-face, his aspect is (to use the mildest word) not wise, and that, as a fashion book once said, “the mouth is worn slightly open.” Still, he is a good-natured fellow, and by some instinct we read on his back that he has an ambition to be amusing. One is perfectly certain



SEVERITY.

in whom force of character is carried into the extreme, and becomes hardness and habitual severity. They are the ogres of the real world, and their homes are dens. A severe back is a pleasanter sight to see than a severe face. One does not care to be round at the other side. It is not what we would call the just righteously indignant back, which is straight and noble, a fine thing, and a venerable. It is the bull-dog shouldered back that denotes the domestic ogre. His bald head shines; one knows that in the front the veins are bursting. His moustache has been twisted to sharpness by angry fingers. His hands are clenched,

or pushing mightily against his hard-set knee ; he could strike, but he has too much pride for violence and his orders are harder than blows. The huge muscles of his back are to him what the big sinews and heavy make are to a bulldog. He has a habit of getting his arm crookedly bent to his knee in self-restrained wrath, and it reminds us of the bull-dog's crooked legs. Oddly enough, in the pictures of "David Copperfield," that the exact and observant author approved, the tyrant schoolmaster, Creakle, invariably got into the position

with the crooked arm weighing heavily on the knee and the other hand clenched. Great is the rejoicing at the sight of this severe back for the luckless folks who have been obliged to look upon the other side of him ! There are, indeed, many backs that are more gladly seen than the corresponding faces. The back of the bore is a goodly sight ; while, on the other hand, when good-bye is grievous, how much precious regard is wasted on the dear, characteristic, well-known back, that never knows what loving looks went after it !

CICERO ON OLD AGE AND A FUTURE LIFE.

"I AM transported with desire to see your fathers whom I revered and loved ; nor yet do I long to meet those whom I have known, but also those of whom I have heard and read, and about whom I myself have written. Therefore, one could not easily turn me back on my life-way, nor would I willingly, like Pelias, be plunged in the rejuvenating caldron. Indeed, were any god to grant that from my present age, I might go back to boyhood, or become a crying child in the cradle, I should steadfastly refuse ; nor would I be willing, as from a finished race to be summoned back from the goal to the starting-point, for what advantage is there in life ? or rather, what is there of arduous toil that is wanting to it ? But grant all that you may in its favor, it still certainly has its excess or its fit measure of duration. I am not, indeed, inclined to speak ill of life, as many and even wise men have often done, nor am I sorry to have lived ; for I have so lived that I do not think that I was born to no purpose. Yet I depart from life as from an inn, not as from a home ; for nature has given us here a lodging for a sojourn, not a place of habitation.

O glorious day, when I shall go to that divine company and assembly of souls, and when I shall depart from this

crowd and tumult ! I shall go, not only to the men of whom I have already spoken, but also to my Cato, than whom no better man was ever born,—the office which he should have performed for me,—but whose soul not leaving me, but looking back upon me, has certainly gone into those regions whither he said that I should come to him. This, my calamity, I seemed to bear bravely, not that I endured it with an untroubled mind ; but I was consoled by the thought that there would be between us no long parting of the way and divided life.*

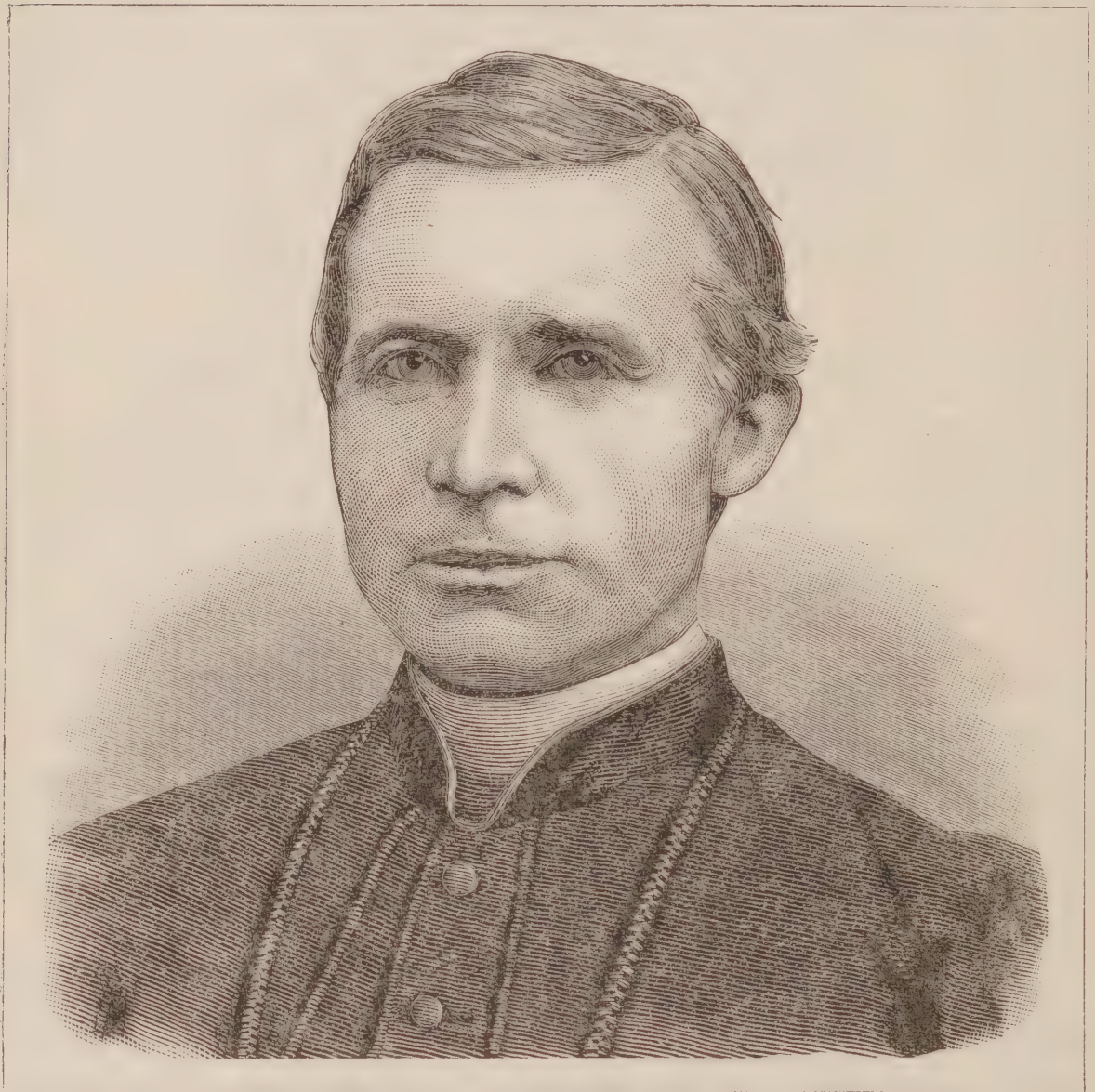
For these reasons, Scipio, as you have said that you and Lælius have observed with wonder, old age sits lightly upon me. Not only is it not burdensome ; it is even pleasant. But if I err in believing that the souls of men are immortal, I am glad thus to err, nor am I willing that this error in which I delight shall be wrested from me so long as I live ; while if in death, as some paltry philosophers think, I shall have no consciousness, the dead philosophers can not ridicule this delusion of mine. But if we are not going to be immortal, it is yet desirable for man to cease living in his due time ; for nature has its measure, as of all other things, so of life. Old age is the closing act of life, as of a

drama, and we ought in this to avoid utter weariness especially if the act has been prolonged beyond its due length.

I had these things to say about old age, which I earnestly hope that you

may reach, so that you can verify by experience what you have heard from me."

* Cato, son of Cicero, died before his father.



THE NEW CARDINAL, JAMES GIBBONS.

AT the time of the decease of Cardinal McCloskey a very natural interest was centered in the question, "who will be his successor?" Boston hoped the honor would be conferred on Archbishop Williams, who, like the late Cardinal McCloskey, is revered for his manliness and piety by Protestants as well as by Romanists. Archbishop Gibbons, of Baltimore, was *Primate* of the American Roman Catholic Church, and to him came the *pallium* created by the March

consistory held in Rome. Strictly speaking, then, Cardinal Gibbons is not the successor of Cardinal McCloskey, but the second American Cardinal.

Born in Baltimore, Md., July 23, 1834, Cardinal Gibbons is comparatively a young man when viewed in the light of his honors and successes. His parents were Irish, and he spent several years of his boyhood in Ireland. In his nineteenth year he returned to America and entered St. Charles College, Maryland,

to study for the priesthood. His ordination by the late Archbishop Kenrick, occurred June 30, 1864. After several unimportant missions he was appointed secretary to Archbishop Spaulding, and stationed at the Cathedral in Baltimore, where his parents had presented him, when a babe, for the rite of baptism.

In 1868 the Pope appointed the earnest young priest as Vicar Apostolic for North Carolina. The responsible duties of this post were so efficiently discharged that upon the death of Bishop McGill, of Richmond, in January, 1872, he was raised to that vacant See. New life was infused into the Church throughout the State of Virginia by the hard-working Bishop, who was not much inclined to delegate his work to others, but personally superintended and assisted in every department of it. While thus engaged in building up the diocese of Richmond, the health of Archbishop Bailey of Baltimore began to decline, and in May, 1879, he requested of Pius IX, the appointment of Bishop Gibbons as his coadjutor, with the right of succession to the Archiepiscopal See of Baltimore, a right which became a fact through the death of Archbishop Bailey, on the 3d of October of the same year. During his administration six new Roman Catholic churches have been erected in Baltimore; St. James' Home for Boys has been established; St. Elizabeth's Home for Colored Infants has been opened; a Home for Servant Girls out of place has been successfully founded; a Young Men's Lyceum Hall and other institutions have been erected.

In the fall of 1883 Archbishop Gibbons and other leading prelates of the Roman Catholic Church were summoned to Rome for the purpose of considering the affairs of their denomination in America. The result of that conference was the convoking of the third Plenary Council of Baltimore. The Pope was quite disposed to appoint an eminent Italian clergyman to the post of President of the Council, but after advising with the American archbishops

that idea was abandoned, and Archbishop Gibbons was appointed Apostolic Delegate and President of the Council. The present Pope, Leo XIII. is a warm, personal friend of Cardinal Gibbons, and on the occasion of the Convocation of 1883, at Rome, presented the latest portrait of himself to the man whom he has more recently honored with the Pallium. The painting is said to be a fine example of art.

Physically, the new Cardinal is not strong, but he is a hard worker, attending faithfully to his duties, whatever may be his station in Church or State.

Taking the portrait as a guide, Cardinal Gibbons has a fairly balanced organization; if not a large, heavy man, he possesses more than average tenacity of fibre and an elastic spirit that enables him to do and to endure more than the average of men similarly situated. He should be known for energy, briskness, good nature and kindness. Few have his even poise of will and ability to meet and overcome difficulties and annoyances. The face shows culture, not the one-sided training that is too often found in men of professional callings, especially clergymen, but a harmony of development that belongs more to the man of affairs than to one engaged in a special line. He should be a good administrator or manager with so many signs of practical talent in the forehead and sidehead, and with so much versatility he could be at the head of an institution or of a system, and organize and direct its operation, however many sides there might be. Activity is the marked part of his nature, and in varied activity he finds his best means of usefulness and success.

WOOD VIOLETS.

O'er the mountain's wooded side,
On the prairies bleak and wide,
In the gray rock's rugged cleft
The rude March winds awaking left
These sweet-breathed easterlings.

A. E.

FAITH AND SCIENCE.

FROM a report of a lecture by Dr. M. H. Dallinger before the British Association for the Advancement of Science, we quote the following interesting passages: As a basis, but not, he was careful to say, as a text, the lecturer referred to that passage in the New Testament in which Jesus, answering Philip's anxious question to be shown the Father, made the sublime reply—"He that hath seen Me hath seen the Father also." The sequences of nature were regular and constant. The laws of nature were rigid and inflexible. So constant and undeviating were those laws that science could not conceive of an interruption. Any interruption of natural law was, to the scientific mind, simply inconceivable. It did not follow that there might not have been an interruption, but science, from its observations and deductions, said that it had no evidence of such interruption. Therefore, to the scientific mind, a miracle which disturbed the rigidity of law was a thing incredible. He fully granted the constancy of law; but, suppose these laws so perfect, so evenly balanced, so all-sustaining, were made by a superior wisdom which we called God, could it be conceived that one so infinite in skill and power would permit himself to be the slave of his own laws? Infinite power shaped and sustained these laws, and was it credible that the mind which evolved an infinitude of worlds would consent to such an abject bondage to its own laws as to be forever incapable of independent movement?

The lecturer then proceeded to argue, upon strictly scientific principles, that an infinite intelligence must have planned the universe and produced life. The horse and the ox beheld the same scenes of nature, the same glorious sunrise and sunset, the same forest and lake and valley as man; but in man alone did they create mental emotion, in man alone did they arouse sympathy, and mingled

emotions of pain and terror and delight according as nature was angry or glad; precisely the same visions were presented upon the retina of the horse, yet he beheld them with indifference. There was nothing in the objects of nature themselves calculated to awaken sympathy and wonder, and a yearning desire to know what was behind all that was merely visible. Man alone was endowed with mind to reflect, to sympathize with and, in some measure, to comprehend, the wonders of the universe. If, then, it required mind to understand and appreciate the operations of natural law, was it not reasonable to suppose that it required the highest kind of mind to evolve these laws? The lecturer then proceeded to describe the materialistic theory of life as promulgated by Herbert Spencer, whose dictum was. "The homogeneous became the heterogeneous." Matter was homogeneous. Homogeneity meant infinite stability. Matter was infinitely inert and infinitely stable, free from outside influences. But matter began to segregate; it became heterogeneous. It separated into an infinitude of atoms. But how did this change take place? There was no power in matter to produce this change of itself. External influence must have been exerted upon it. The potency of life might be there, but the power to produce life was wanting; nor had all the investigations of chemistry added anything as to their knowledge of the origin of life.

Dr. Dallinger quoted from Professor Huxley, who declined to follow those who professed to find in matter only the origin of life; and from Professor Tyn-dall, who, unable to account for the consciousness in man, by which he alone was enabled to say, "It is I," and unable to find any connection between this consciousness and the molecular action of the brain,—said he "bowed his head in the dust in the presence of this mystery." Hence his conclusions were

that there was a first interposition on the part of superior wisdom which resulted in the segregation of matter, and a second interposition which resulted in the appearance of life. If it were granted that competent wisdom did interpose, it might be asked by whom was this superior wisdom produced? His answer was, that while the study of the finite was legitimate, and while all search after truth, within finite limits, was lawful and commendable, the study of the infinite by the finite was beyond the range of lawful investigation. Having noticed two interpositions of competent wisdom, it was not hard to accept the third interposition in the incarnation of Christ. Man had become degraded by sin; he was guilty, and he knew it. Even among those peoples where the only light was the light of conscience, man felt himself a sinner. Christ's mission was not to exemplify either the power or the wisdom of God,—these were

manifested alike in galaxies of constellations, in mountains and sea, and in the painting of the lily,—but the moral character of God. Christ said, "He that hath seen Me hath seen the Father." His mission was to reveal God's love to man, and to lift the race up to him by the might of this love: to establish God's moral kingdom on earth. His life of purity, meekness, and self-denial, and the sublimity of His death, all taught the great truth that God was love. He believed that the origin of life would forever remain unknowable, and he was quite aware that he had not added to the present state of knowledge on the subject; but if he had shown that infinite wisdom and love in the beginning must have moved upon matter and moulded and directed all things that are; and if this knowledge proved an abiding rest for the mind and heart, then he had accomplished the object in view.

SHAMS.

LATE one afternoon as I sat alone comfortably resting in a big armchair, a stray sunbeam came shining in upon me through a western window; it played over my head and down on the floor, brightening the roses in the carpet until they looked real enough to fill the room with their fragrance.

"O, you gay little sunbeam," I said, "how your presence brightens everything wherever you go; none more welcome than you, my charming visitor." The sunbeam danced and wavered up and down and over the long lace window curtain and seemed to say "Come, let us play hide and seek." I answered, "If I were a fairy I would, but I am big and clumsy, and like better my snug armchair. What a fine time you have of it travelling around the world every day, peeping in at doors and windows, and seeing things with their masks off. I suppose you long ago learned that 'all

the world's a sham, and the men and women merely players!'"

A puff of wind blew in at the top of the window and shook the curtain, and the little sunbeam frantically danced up and down the whole length of it. I had never heard a sunbeam talk before, but this one appeared to be saying something in low, tinkling tones. I listened in delight, and this is what I heard:

"I will tell you of the sham sights that I have looked in upon to-day. All shams are not bad, some are innocent, some are good, while others are bad, very bad."

This morning, I shone down upon two happy children, a brother and sister, who were playing at housekeeping. They had a chair covered with tiny dishes for a table, and had a dog and cat for their guests, to which they were feeding bits of gingerbread and crackers in merry glee. This wasn't

real housekeeping, but a very innocent sham. After this bounteous repast was concluded, the little boy said, "Now, I must be like papa and smoke my cigar after dinner; but what shall I do for a cigar? Oh, here is a lead pencil, I can play smoke with it, and that will do just as well." And the little boy put one end of the lead pencil in his mouth and puffed away like any old smoker. This was a bad sham, but the reality was much worse.

Next I beamed into a dry-goods store where a woman was looking at some calico and lace, spread out on the counter. The clerk was saying "If you make up this calico in a dress, everyone will suppose it to be gingham; it looks like a fine piece of gingham, as you can readily see, and this lace is a perfect imitation of the real article. There is scarcely a person who could detect the difference." After the woman made the purchases and left the store, the clerk remarked, "How people do enjoy being humbugged; that calico will fade and the lace wear out in less than no time, but if people are better satisfied with the false than the genuine, it is no fault of mine."

I peered into another store where a man asked for coffee and tobacco, and was given the articles well adulterated with browned beans and dried cabbage leaves. This might be a useful sham in making less harmful articles of a poisonous nature. I then crossed the path of a low vagabond who was entering a drugstore. I went with him in at the open door; the poor fellow muttered curses on "This mean temperance town," then went forward and begged the druggist to let him have a few bitters put up in a good deal of whiskey, for he was sorely ailing and must have the medicine. The druggist handed him a flask and he went down a back alley where he sat down on the ground and drank, and drank. I was so sorry at this, that I went back to the sky and hid behind a cloud, where I told all about

it, and the cloud melted away in tears and went pattering down in big rain drops that refreshed and made glad millions of green leaves. I went with the last of the rain-drops back to earth again, right among some drooping flowers, and when the rain showered down upon them, they raised their heads, looked up at us and smiled. Then I wished that all human tears were as beneficial as the cloud's rain-drops. Some tears of sympathy are, I know.

"In one place some children were showing each other the presents Santa Claus had brought them, and were talking about how this queer old chap travelled over the country with his sleigh and reindeers, and came down the chimney every Christmas eve, and I wished there were many more just such glorious old shams like Santa Claus to help fill the world with happiness. At noon to-day I looked in at a jewelry store. A lady was holding up a golden chain. I glanced over it, and how it did glitter! "What a beauty!" exclaimed the lady. "That chain is heavily plated and, with care, will last longer than your life-time," said the jeweler. The chain dropped on the counter with a jingle. "I never like anything that is a sham or pretension," said the lady, "I wear very little jewelry and will have nothing that is plated or washed; I want a small, solid-gold chain."

"It isn't everyone who can afford the solid gold, so we keep all kinds to suit all tastes and purses," said the jeweler.

"I wear the solid material or none at all," the woman replied.

"You seem to have a marked dislike to all shams; now if your brown hair were suddenly to turn gray would you not procure some dye and wear false colors then?" And the jeweler looked at her with a quizzical smile as if his question were a poser.

"Never," was the reply. "If my hair turns white as snow it will have to remain so."

"And what about false teeth?" further queried the jeweler.

"O, they are sometimes a necessary evil," the lady replied. "All shams are not bad; a sham good may be entirely superior to a genuine bad. I think I would wear false teeth rather than swallow unmasticated food, or have my face be an uncomely offense to any one. I believe it to be the duty of all persons to contribute their share of beauty to the world by looking as handsome as they honestly can."

"There is a college chapel that I enter nearly every day: near a window sit two students one of whom is finely dressed, with clothes cut in the latest fashion, his hair is daintily perfumed and he is altogether so exquisite and uses money so lavishly that he has many admirers, and is very popular among the students and a favorite with many of the ladies. Yet in reality he is a shallow-pated fellow, and there is no genuine worth in him notwithstanding his showy appearance; his name is Sham Shallow. Frank Reality sits beside him and is too plain and straight-forward a student to have the same popularity. Some of the boys even think him a little green and pass him by without a glance of recognition. He feels the slight and winces under it at times, but knows their opinions are worthless and that often the world sees no deeper than the surface. But time will test their value and show

what a huge sham are these false estimates."

"Frank Reality has a frankness of disposition, a sterling integrity and honesty of purpose, sound sense and great strength of character, upon which he will build a life structure of valued intelligence, goodness and genuine worthiness; and when he is a strong, useful and honored man, Sham Shallow will be as a bursted bubble. The well-dressed man feels, and is more respectable than if he were inside a ragged and dirty coat; but a fine exterior does not long retain its fair appearance, if there be not a corresponding fineness of heart and brain within. Some shams are very bad, but sham people and sham opinions are the worse shams of all. But I can tell you no more to-day, for the great sun is almost down the western sky and I must go, for I am always on time. I am sent as a shining example of promptness to the world, never being in a hurry, and never a moment behind time, I will come in at your window again on the morrow, but now I bid you, good night."

The sunbeam whisked out of the room, and when I went to the window only the stars were shining. I closed the shutters and lighted the lamp; the fire glowed on the hearth making the room look bright and cheery. What a blessed thing is light, but I love the sunlight best of all.

ERRO.

BEGGARS ALIKE.

A beggar stood at the rich man's door—

"I'm homeless and friendless, and faint and poor,"

Said the beggar boy as the tear drops rolled
Down his thin cheeks blanched with want
and cold.

"Oh! give me a crust from your board to-day,

To help a poor beggar boy on his way!"

"Not a crust, not a crust," the rich man said,

"Be off, and work for your daily bread."

The rich man went to the parish church,

His face grew grave as he trod the porch,

And the thronging poor and untaught mass
Drew back to let the rich man pass.

The service began, and the choral hymn

Arose and swelled through the long aisles
dim,

Then the rich man knelt, and the words he
said,

Were, "Give us this day our daily bread!"

NOTES FROM A TEACHER'S DIARY.

December 10th.

SOMETHING very sad has occurred since I last wrote, and our hearts grieve for the bereaved parents. There has been a freeze and the ice has given much pleasure to the skaters. One meets them on every open lot and pond, and even on the plank sidewalks. On Saturday several lads ventured on the stream that supplies the Rolling-mill with power. For awhile, and as long as they kept away from the dam, all went well, but as they drew near it, danger threatened them. They wanted to show that they were superior to it and grew reckless. Then came the terrible news that several had gone over the dam, with great masses of ice, upon the jagged rocks beneath, bruising and breaking their limbs; and that one beautiful little girl, who was drawn on her sledge by her tall brother, was dead. We heard the mother's long, sad wail the rest of the day, and it wakened us frequently during the night. All through the Sabbath it sounded, only mingled with loud words that seemed to curse and reproach some one. I started several times to go to the desolate home to offer consolation, but the priest had been there, and there was to be a wake, which decided me to return. And so I tried to read and sing to drown the voices which would be heard, for the scene of bereavement was only a little way from the street on which we lived, just out on the corner of an open lot. We were glad when the church bell sounded and we could find a good excuse to go far away from the wail of despair. The words that followed us down the street were "You killed her, my one lamb." Oh, how they came between the sermon and my thoughts! I bowed my head and earnestly prayed that God would take care of the poor lad whose heart was now doubly bruised. There he lay with a bandaged arm, the arm that tried to save her life, but no recognition of that fact had been given at all by

the frantic mother. She had lost several children between this son of seventeen and the pet of seven years. The Sabbath waned but the voice grew more wrathful with its bitter words, as the liquor-fiend helped to destroy reason and kindness. Several gentlemen from our street tried to quiet her, but in vain; the police turned hopelessly away after gazing upon the extreme beauty of the child lying there with crossed hands, her wealth of golden curls scattered in beautiful confusion over pillow, shoulder, and brow. She seemed to be trying to clasp the hot-house flowers sent from my desk, the gift of a pupil. I had gone up to the school-building to get them, and had forwarded them by the gentlemen who sought to console her. One finger resolutely strayed from its place, reminding one how delicately the hand was formed, so at variance was it with the rough, plain lad she had called her brother. He was like the mother, coarse and unrefined; while she had the father's hair and complexion and gentle ways. The poor lad groaned and tossed with anguish of body and mind. He refused food, and no one ministered to his wounded spirit. The broken arm was as nothing compared with the reproaches of his unkind mother, to whom he longed to unburden his mind; but she would not listen, and so he had his grief alone. All he was heard to say was "Kill me, too, mother. Oh, I wish I was dead." Monday came, the wail was lower; people said the mother would die, die of a broken heart. The doctor came and went, and tried to give her opiates, but she would take nothing, and with each attempt the cry increased to shrillness. She was driving her son to utter despair. Her home was quite near our school; the children could not study and we could not teach. "Something must be done," the principal said, and he called all the teachers into council. None of us wished to be sent to such a place,

where the very air was laden with the odors of the last night's carousal, and so the principal went himself, but all his gentle words were unavailing. Recess came; some of my boys begged to go there for Johnny's sake, and insisted that I should accompany them. They led me very tenderly over the slippery, frozen ground until we saw a lad leap from a window. "Run," I said, "and save him. Comfort him any way you can, but be quick." How their feet flew! They were none too soon in reaching him and taking him back to his bed weak and exhausted. It was Reynolds that brought relief to the house, dear Reynolds, and two other lads just as impulsive as he. They burst in upon the enraged woman like sparks of fire, bidding her to "just stop and try to save the one child she had left before it was too late." She grew calm under their violent words, as if stunned. The people standing around took in the situation, and made good use of the quiet to minister to the poor lad, which they had been forbidden to do. Reynolds' tender hand soon found that the arm was out of place, and like a general he ordered the best city surgeon to be sent for; a command at once obeyed. The exhausted mother fell down upon the bed beside her son. We turned to look upon the marble dust; how wonderfully beautiful little Katie was! It seemed to us we had never seen anything to compare with her; and the boys broke down with great sobs as if she were their own sister. The woman looked on and smiled, "Ye be blessed bys every one of ye to help a poor woman with ye's crying; an it's a blessed teacher, it is too, that helps a bit and sent the flowers." The women had used great exertion in making her understand who we were. She attempted to rise, but she had no power to move. I stood and held her head awhile and then we went back to school. Recess had been over a long time, but though the children could not study they were perfectly orderly, waiting to know all that we had to say. We always

sing just after recess. I let them select their music. Reynolds' hand went up first, "Please sing 'That Sweet Story of Old.'" We did so.

When we had finished the verse, Katie Beck asked if I thought "Jesus' hands would be laid upon poor little Katie's head." I replied "We will hope that they will." "Do you think she is gone to heaven?" asked another. I answered, "If she knew the difference between right and wrong and chose the right, trusting Jesus, she has." "She was always singing, 'I want to be an angel,'" said one, "perhaps God made her learn it so she would know about heaven." "She learned it," said another, "sitting right under your window; she used to come very often." And so we sang her favorite song, and I then asked if all my dear children did not wish to be angels when they were called away, and every child responded with uplifted hand; but Reynolds and a few more held up two. I said, "Let us tell Jesus this," and while they all bowed their heads we asked that no one of the number might be missed from *His* fold.

Reynolds motioned to me; I looked out of the window. Dr. T. had just driven up; the arm would be set right at last, and the hearse was slowly coming up the street. A few teams soon followed it up the long hill in full view from my windows. I let the children stand, a division at a time, until all had seen the procession. The poor mother never saw her sweet child's face again. The physician had administered an opiate, thinking that it might save her life, but all agreed that it was the lad's sympathy that was the turning point with her. The doctor had expected her life to suddenly go out, and had said that she could last but little longer under the strain, and if no one could break the spell she would die. Here Reynolds' impulsive nature proved a medicine, and who shall say his natural disposition was a mistaken gift of God?

To go back; when we lifted our eyes

from the prayer, we saw the principal standing inside the opened door. He advanced to my desk, and said, "Sowing in the morning seed for the kingdom." We looked into each other's eyes a moment in full appreciation of gospel work. I replied "There is never but one time to do anything, and that time is when the opportunity first presents itself." "Yes," he said, "probably never again in your whole life would such a chance occur for such a lesson, and who may measure its result?" His own daughter is in my room. He has since spoken of the good effect upon her.

Dec. 15.—There is another funeral to-day, a lad who had a broken limb has passed away. A third, I am told, will probably follow soon. So there are other sorrowing mothers and bereaved homes. How sad to throw away life for just a moment's adventurous fun. Three brothers skated only just to a pole set in the ice by their father. In vain they warned their young friends that the ice near the dam would be likely at any time to break up, and that safety lay only on their side of the pole. Nothing could induce them to go beyond their father's wishes, though one of the three longed to try one race a little nearer, but the others restrained him. Had they gone, too, there might have been none to report the accident in time, for though the children called loudly for help, the roar of rushing water, the dropping of railroad ties, and the incessant click of machinery near by, drowned all other sounds. The men at the mill heard nothing until the lads rushed in to summon help. Then it was that the ponderous wheel was stopped. But what a terrible task the men had. The lads ran for more help, but the icy stones were so slippery that no one could stand upon them, and what added to the danger was the refuse iron that from time to time had been tossed out of the windows of the mill upon the jagged rocks. Every child showed some hurt save the little girl who lay on her sled under the

dam where the water did not reach her. They thought she had only swooned, but she showed no sign of life from the first. When the facts became known, it was found that Johnny skated nearer than he otherwise would have done just to warn his playmates. He gave the sled a push back upon the pond and shouted to the boys ahead; but both were too late, the boys were under too much headway, and the noisy mill drowning his voice prevented their hearing in season. The sled veered and started for the corner of the dam; he skated after it in vain, the ice broke in and carried them both over. Had he succeeded in making the boys hear, and had the sled not turned just as he expected it would not do, what a *hero* he would have been called! And as it was, it was Johnny that ran the greatest risk in saving others from the icy rocks. He was endowed with unusual power in balance and could stand where others shuddered to go. He called for old coats and took them from the men on poles as they reached them to him, and laid them over the terrible rocks, and having secured his sister brought her up in his arms not dreaming that she was dead.

Dec. 18.—Several of us have been out to see the place where the children were thrown by the treacherous ice. How any one could live there an hour is a mystery, the water rushes on so fast, and then those awful, sharp-pointed irons scattered around and sticking up between the rocks! The men declare that if spring and low water ever come they will clear the whole away; they have often spoken of doing so lest in an evil hour the furious water should burst the dam and carry off the mill, and some of them be thrown upon this hopeless place to perish. A rich man offers quite a sum toward clearing it this winter. Skating beyond a certain point specified is now forbidden by the authorities, and we all breathe freer. The affair has produced great excitement in the city.

L. R. DE WOLF.

A PLEA FOR WOMEN.

IN a review of a recent book on population, the writer says :

"Indeed, in this age, when it is so difficult to provide work for the many surplus women in our eastern towns, the main subject should interest every one. 'O, that I had been born a boy instead of a girl,' is the despairing lamentation that goes up daily from hundreds of lonely women compelled to toil along life's thorny road for a living, hourly conscious that their sex limits their progress. And if this book shall prove as influential as we believe it will, in increasing the proportion of boys born, who does not see that in the next generation one half of the misery abounding in our cities would vanish? Societies for the suppression of vice and the amelioration of the poor would be almost without material to work for. A consideration of such resulting blessings to humanity justifies us in claiming this as the Crowning Discovery of the Nineteenth Century, one that will carry the author's name down to future generations, linked with the great immortals of this age of invention and discovery."

Something is wrong ; the country is rapidly going to Halifax and *somebody* is to blame for it. In the East it is the surplus women ; on our own Pacific coast where women are not over abundant, we have the same cry of "vice, poverty and crime," only here it is the Chinamen and *they* have "got to go." One of *their* chief offences is, they are *all men*. Truly the American Lords of Creation are hard to suit. If the Chinese should go east and the women come west, I wonder who would have to go then? Not the men of course, for they are needed to furnish the women employment, a duty which is religiously discharged, no matter how other things go, as thousands of wives, mothers and sisters whose lives are one perpetual round of cooking, washing, ironing, sewing, mending, caring for children, etc., can testify. But,

as our philanthropist tells us, there are not enough men to go around, and do their best there are still a number not thus provided with work who are stepping into forbidden paths, becoming lawyers, doctors and editors, which is a standing menace to our Republic on the east side as the Chinese are on the west. Vigorous measures must be resorted to at once or we are lost—that is, the men are.

Almost daily we read items like these : "A woman in Iowa owns and controls two banks," "In Austria there are over three thousand women employed in railroad offices" ; "there are in this country 595,000 women engaged in agriculture, 632,000 in manufacture, 232,000 milliners, 52,000 tailors, 2,473 female surgeons, 75 lawyers and 165 clergymen." "Mrs. Hutchins, of Springfield, Mass., one of the most successful business women in the country is a dealer in musical instruments." "There are from fifty to one hundred female medical students in Paris, among them a woman of color." "O Satisaw, a young Japanese lady writer, has been taken on the editorial staff of one of the best newspapers in Tokio." "In Topeka, Kansas, there are three women commissioned as notaries." "Mrs. Forbes has patented an invalid's bed, Mrs. Gartrell a step-ladder, Mrs. Dunham a neck-yoke and pole attachment, a device by which horses can be detached from a vehicle when danger threatens." "Mrs. T. Nodler, of Keokuk, has one of the finest and largest grocery trades in the state." We have a female railroad official and a schoolgirl engineer. Lady photographers, stenographers and telegraph operators are common. A year or two ago an unlettered Irish woman died in New Orleans, leaving a fortune and one of the largest bakery establishments in the country : all the work of her own hands, besides dispensing so much in charities and doing such great good that the city saw fit to

erect a statue to her memory. Women as dry-goods clerks and cashiers give better satisfaction where employed than most men, because they never embezzle, are quicker in making change, detect counterfeits quicker, and seldom wish to run the whole store. It is quite evident that men are failing to provide employment for all the women; business is threatened and they must go.

It is possible there are Abimelechs in the present day who entertain the same feeling toward women which he expressed when "he called hastily to his armor bearer and said, Draw thy sword and slay me that men say not of me, a woman slew him," when one of the weaker vessels put an end to his victorious but sinful career by crushing his skull with a piece of millstone.

From a *woman's* standpoint the outlook never seemed more hopeful than now. The time was when men were willing to be leaned upon and women were willing to lean, but leaning is not a pleasant occupation to engage in for one's life-time, and the saying of St Paul that "she who marries does well, but she who marries not does better," has been verified by a bold and adventurous few of these surplus women, and others are following their example. They are learning that God gave them health and strength and power to think and to execute, just as he has the sterner sex. He has also said, "it is not good for man to be alone," and as woman performs as great a part of the world's work as man why should she not walk hand-in-hand with man, doing whatever her talents make her capable of doing, or, in other words, why should her sex limit her progress? If God had intended woman to be excluded from all money making vocations, or any other for that matter, why did he not mention it in his plans?

Women are waking up to their possibilities; they are learning that many kinds of business hitherto supposed to belong exclusively to men, can be successfully managed by them. They are

also becoming imbued with the spirit which possessed our revolutionary forefathers and opened the way to such glorious results. They have thought, if women may own property, pay taxes, submit to the laws in every way as men, suffer penalties imposed by men for their violation, that they have a right to a voice in making those laws. It is monstrous to suppose that sex denies them this right.

As a result of the "woman question," the franchise has been extended to women in Washington Territory. The following is from a California paper after the first election in which women exercised this privilege:

"The first general election in Washington Territory, since the right of suffrage has been accorded her women citizens, passed without any of the direful calamities predicted by conservative men, timid women and professional politicians. Although twelve thousand women voted, no domestic misdeeds are noted, such as uncooked dinners, neglected infants, or husbands driven to saloons. On the contrary saloon keepers find their occupation in danger, the liquor dealers being the strongest enemies of women. The plotting politicians are amazed at the result of the election, never having dreamed of the earnestness and strength of the women. They selected the best men from both tickets, and elected them all. Every paper in the territory is applauding their action, and it will be many a day before any attempt will be made to rob them of their newly acquired power. Mrs. Dunniway, editor of the *New Northwest* has been the most active agent in bringing about this change."

It was my fortune to witness the last election there, and I never saw one conducted so orderly and with so little friction, the women going quietly to the polls in company with husbands, lovers or other ladies, and were shown the same respect there as at church, on the streets, or in their homes; nearly all of them

voting, though one very sensitive woman absolutely refused to do so at that or any other election because the negroes had been recognized first; however, such cases are rare. There was the usual jubilee over the result which lasted till nearly morning, with its accompanying whiskey drinking and riotous disorder.

The time is not distant when other states and territories will follow the example of Washington Territory, and women will take as much interest in political affairs as the questions demand, and there will be some decided changes made. Take the temperance question, for instance, which is uppermost in the minds of women, and give them an opportunity to vote in Massachusetts, where the females of voting age outnumber the men by over 50,000. It requires no prophet to foretell what would become of the saloons. The female vote would decide any question upon which they are united as they *are* in the temperance cause. As it now stands a tramp's vote balances that of the heaviest taxpayer in the land, and two tramps may make the laws for him, while everything in the way of improvement, development and expense devolves upon him, and nothing, except of a negative nature, is expected or received of the tramp. In other words, some of our best measures fail, not because good men disapprove them, but because they are outnumbered.

It is true that enlarging the horizon of women compels them to mix more than formerly with the lords of creation, and this is looked upon with terror by a certain class who fear for the future of women, but "straws show which way the wind blows," as evinced by an item which appeared recently in a well-known musical journal. A certain lady who is "head" of a travelling musical company has been put under bail (?) for applying the lash to a dude who insulted one of her chorus girls, he being the third of that class to which she had administered a like chastisement.

It is hard to see how "increasing the

proportion of boys born" is going to do as much for the suppression of vice and crime as is claimed for it. Our country is flooded with tramps who go about committing all sorts of crime and depredations. How many women live in the same way, complaining that there is no work to do? On the other hand a woman may, and often does, make the living for the family when her husband is "out of work" and can find no better employment than standing on the street corners anathemizing monopolies and the Chinese.

Then what of the effect on the male population when isolated from those of the opposite sex? Take for example our mining towns; but how soon the days of bowie-knives and revolvers vanish when a healthy proportion of women are introduced. It is said of our civil war that we, as a people, suffered more from the moral degradation resulting from army life and its demoralizing effects upon the surviving soldiers than we did from the numbers slain; but how about the wives at home, and how about any place where women are dependent upon each other for society and companionship as compared with men? How much hazing is done in the schools for young ladies?

Parents are learning to give their daughters an education, by which they may earn a livelihood, just as they do their boys, and find them quite as apt in learning and making use of it. The only reason that woman's "progress has been limited," is that she has not until recently been given her privileges to any great extent.

No, we don't think it necessary to reduce the proportion of women, neither will they long cry "O, that I had been born a boy," for circumstances which gave rise to the wish are passing away; the time is coming when woman will be accorded that for which so much precious blood has been shed, both in the revolution and for the colored race of the south—her *freedom*. M. C. F.

HIS WEAKNESS AND HER FAULT.

(Continued from March Number.)

CHAPTER II.

MAUD never knew what was the matter with Harry that night. A few words, a few caresses, cleared the clouded atmosphere, and all was sunny and serene.

"I suffered so much last night," the little fiancée said, hiding her sweet face on her lover's shoulder.

"Did you, darling?" said Harry, with an inward pang. "I am so sorry! you shall not suffer in that way again if I can help it."

"Of course you couldn't help that! How could you help being sick? At this point soft arms were put around Harry's neck, and a cooing voice murmured: "I wanted to come to you more than I can tell." Then still lower the voice fell and the girl whispered: "I shall have a right to take care of you when you are sick by and by, won't I?"

Poor Harry! His conscience condemned him very bitterly at that minute. "Shall I tell her all?" he asked himself. "It would be of no use; it would only grieve and frighten her," was the reply. So he took her in his arms, and held her close against his heart, and told her he was not good enough for her, while she protested that he was a great deal too good.

Ah, how many men have said, "I am not good enough for you, darling!" How few have resolutely made themselves good enough for the women whose happiness they have taken in charge! To do Harry justice, he was very serious for a day or two. He made resolution upon resolution never under any circumstances would he take so much wine again. What would his darling do if she should see him in such a state. It would kill her, he was sure. She never should see him so. He would watch himself, and not let those fellows make him forget everything but their

stupid fun. What did he care for them? Maud was more to him than a world full of them? Dear, confiding, loving child! Thus he talked to himself in the solitude of his room.

Harry Hubbell had not learned what a vast distance exists between solitary resolve, and social action. Many a man sees the right way and wishes to take it, and fully believes that he is strong enough to carry out his own wish or will. And so he would be, were there no more obstacle than appears when the man makes the inward choice. But actually to walk in the right way, involves the ability to overcome opposition, and the will of the average man gives way under very slight pressure. Let us suppose that in his room alone, Harry had said: "I must be true to Maud and to myself, let what will oppose. I am very easily influenced by society—in fact am quite another man in society. Alone, I see a subject in one light; with my friends I see it in another light. That which I see alone with my conscience, is that which I must follow. Since I can not even see my duty when under the influence of my accustomed society, I must put up an inflexible barrier between myself and all false influence. This will be very difficult; I shall have to endure much that is hard, but I shall save my manhood, and be true to the love my darling has confided to me.

"I can not live without sympathy; therefore I will seek constantly the society of those who are most like what I wish, in my best hours, to be. And first and last, I will seek the sympathy of the Father of my spirit, whom I have been taught to know as always ready to guide and help to the uttermost."

Harry did not arrange his life in this fashion. Yet I think he would have done so, had he suspected the fatal weakness of his will. I believe most men and women know very little of

themselves in this direction, and hence the pitiful slips, the falls and retrievals, that consume life. We are like children who let go the nurse's hand and attempt to walk through manifold dangers of which we are ignorant. Our mistake is in miscalculating our strength. We wish right, in the inmost, but the wish is as weak as an infant, and must be sustained by outside help till it grows to manly will.

Harry Hubbell was aware of help waiting to co-operate with him ; but he was not aware of his need. His experience at the party gave a slight shock to his self-sufficiency ; but he satisfied himself with resolving to do better, not considering that resolve is as useless by itself, as fire-arms without powder and ball. Poor little Maud contributed to her lover's self-satisfaction, by her persistent belief in the inherent propriety of whatever he choose to do ; and so circumstance wove its web, unmolested by any will stronger than itself.

Six months passed away, without especial incident, excepting the daily incidents, that show whether character is being built up, or undermined, and Maud Fay's wedding day came. Grace Fanton was married the same day, and the four friends went at once to house-keeping in the same street. James and Harry, assisted by the girls, had been indefatigable in house-hunting. They were determined to live near each other and equally determined to have airy, sunny, situations, and the combination had been rather hard to find. At last they had found "just the thing" two cozy cottages very near each other, with piazzas, and French windows and plenty of vines that had had their own sweet way for the last five years. "The houses were built for the owners," explained the agent who let them. Accordingly, said owners had set out wisterias, and many varieties of roses, and hardy perennials, till the cottages were like nests, hidden in leaf and bloom.

I look forward to the time when tran-

sient tenants shall beautify the homes they live in, for the sake of those who come after them, as well as for themselves. I heard a lady say once : "As soon as I own a house I shall set out a wisteria ; but I don't want to get one started, and then have to leave it."

What a commentary upon our everyday practical living. This by the way.

After the taking of the cottages, Maud and Grace met very often to decide upon the furnishing. Maud was determined to be guided by Grace in the matter of selection, but to carry out the determination cost her a great deal of self-denial. She wanted everything that was pretty, and costly, and elegant, without stopping to think about suitability and adaptation.

"Now, Maud," said Grace, as they were looking at carpets, "you surely will get Ingrain for your bedrooms."

"But this Brussels is so lovely ! The pattern is perfection !"

"I know it, dear ; your taste is exquisite, as it always is ; but think a minute ; you are furnishing a little home for constant use, not a show establishment."

"Yes, Grace," still looking wistfully at the charming patterns.

"And Harry is just beginning, and—"

"Never mind, Grace, I won't look at it any more ; if it wasn't for you I should spend my allowance on carpets, and have nothing left." So the friends went from one department to another, and thanks to the discretion, and experience of one, and the teachable temper of the other, they selected only that which was usable for young housekeepers, with moderate incomes.

"There are many ways in which you can take care of Harry," said Grace, as they sat in the bay-window of Maud's house, finishing some pink toilet cushions.

"He says he only wants me to love him," replied Maud, stitching rapidly.

"Of course," replied Grace, smiling, "but real love includes doing the very

best for the loved one in every way."

"Please tell me what was in your mind when you began to speak ; I really want to do the best for Harry."

"I was thinking of saving him from anxiety and temptation, by your economy. Harry loves you so fondly that he will strain every nerve to please you ; but he can not do everything at once ; and you mustn't let his love tempt him beyond his strength."

This was a wise speech, but only one clause of it fell with force upon Maud's childish heart.

"How glad I am that you think Harry loves me fondly, she said, laying down the cushion, and putting her arms round Grace's neck.

"Why, you foolish baby, you don't need me to tell you that Harry loves you."

"I would like to hear it from morning till night. I know it, but I want to know it more and more ;" and the sweet face was hidden in Grace's lap and presently a little sob was heard.

"So this is how my attempt at preaching ends ! what a passionate heart it is !" said Grace, lifting the wet cheek, and kissing it fondly.

"No, it shall not end so ; tell me how I can economize ?" replied Maud, sitting in her chair, and taking up her work resolutely. "I'm not such a baby as I seem."

"I wasn't intending to say much about economy ; I only wanted to point out Harry's danger if he should be too closely pressed."

"It is always Harry's danger, why is Harry in so much more danger than James ?"

"Harry is very different from James. Don't think I am criticising him ; you know we all love him ; but he is apt to undertake too much, and then react. You have done bravely in your house-keeping purchases ; I want you to keep on being judicious, and careful so that Harry won't find himself in a tight place ; depend upon it Maud, he isn't

made of the stuff that will bear great pressure ; or perhaps I should say that he is not yet mature enough in character to bear pressure ; I believe that there are possibilities of splendid manhood in Harry Hubbell."

The conversation was interrupted by the entrance of Mrs. Stone, a lady who had taken a cottage near by, and who came in to ask a little neighborly assistance, in housekeeping matters. She introduced herself naively, and apologised for her intrusion by saying that her girl had deserted her suddenly, and she had no one to send of errands.

"So if you will lend me a cup of sugar, and some baking powder, I shall be under great obligations to you," she said after chatting gaily upon the discomforts of moving.

"You are more than welcome to anything that I can do for you," said Maud ; "I am very glad that we are to have you so near ; Harry tells me that he used to know you a little."

"Mr. Hubbell ? Yes ! we had a boarding-school flirtation. How those things pass away ! I had forgotten it entirely till I suddenly came upon your husband in the street, the day I moved. How handsome and manly he has grown ! He was a great favorite, too, as everybody loved him."

Maud's eyes sparkled at this praise, and the call grew into quite a visit in which the two, Mrs. Stone and Mrs. Hubbell, quite fell in love with each other. Grace was not so easily pleased, but Maud liked anybody who liked Harry.

When the two friends were left alone, after many invitations from Mrs. Stone to visit her, the question of expenses was again resumed.

"You can't guess what I have been begging Harry to buy," said Maud. "A doll ?" asked Grace, with a teasing smile. "No ; something a great deal bigger—I know you'll scold."

"I'm sure I shall, if it is an extravagance."

"I suppose it is—it's a horse."

"A horse! O, Maud!"

"Don't look that way. I'll take it all back. I'll ask Harry the very first thing when he comes home not to think any more about it."

"That is right. I must go; it is time for them now."

"Is it so late?" exclaimed Maud, taking a dainty watch from her belt; "Why how quickly the time has passed!"

A half an hour after Harry came running in, fresh from rapid walking, and gay with happiness.

"How is my darling to-night?" he said, kissing his young wife, tenderly. "Why what is the matter, you look as serious as if Kitty had caught the canary, or your prettiest rose bush had been robbed."

"O, Harry, you think I'm not capable of really serious thought. But you are mistaken. Come and sit down, and let me tell you what Grace has been saying to me."

"So Grace has been preaching again? I don't thank her for clouding your sunshiny face. She is a great deal too particular and fussy."

"O, no, Grace isn't fussy; she is splendid. I wish you would let her advise you. She and James know better than we do what is best."

"Well, never mind, Maudy, I've got something for you."

"Something nice!"

"Very nice, indeed, I think."

"Opera tickets?"

"Nicer than that."

"What can it be?"

"You must guess again." •

"By the way, Harry, I want to tell you something right here. Grace showed me how absurd it was to ask you for a horse. I wouldn't have one now, anyway."

"You wouldn't?" said Harry, giving his wife an emphatic hug. "That is exactly what I have bought for you, and we'll try him to-morrow."

M. L. B.

[TO BE CONTINUED.]

HAPPY HOME LIVING.—One of the most beautiful of all moral exhibitions on this planet is a whole family of parents, sons and daughters living together in affectionate unity, where nothing is ever seen by any chance but kindness, courtesy, deference and self-abnegation; a habitual preference in favor of others—that kind of preference which lovers show; where the pleasure is in proportion to the self-denial; where it is no effort, and where there is not an instant's delay in yielding the best places and the best things, or doing a service which can in the least aid another. And when it is considered how short a time any family can remain together under the same roof—how rare a thing, indeed, that death has not already made a gap, and how he may make one any day, when it will be too late forever to atone for any wrong done, for any hurting of the feelings (especially under a misapprehension) any wounding unnecessarily of a loving mother's heart, or father's or brother's or sister's; a wounding which, when they are dead and gone, flies backward, like a Parthian arrow, poisonous and rankling never to be extracted except by the great doctor, Death. Well would it be for the happiness of many a heart to make it a study from this hour—the habitual study, how to live in the family so as never to be the cause of a heart-burning; how best to avoid the planting of those remorsees which are thick this very hour all over the world, expressing themselves thus: "Oh, what would I not give to have them back one single minute, to let them know the bitterness of my repentance!"



Nature will nurse what we plant with care,
And so will time what we do or say,
Or good, or ill, it is sure to bear,
And we to know it some future day;
O, heart of mine, shall your fruit be rare,
Or only weeds, to be cast away?

W. L.



PRINCIPLES OF HEREDITY.

IN respect to the general doctrines of Heredity no argument is required. "Like produces like" is so well understood that no man expects to "gather grapes from thorns or figs from thistles," yet the great idea which underlies the general principles of Heredity is or may be called *modified* influence, or *interjected* influence, producing results desirable, which inhere in the original constitution, but which, without special conditions, will not be manifested to the improvement of the race. The chief thought then, of Heredity is to *improve* the human race, and elevate its plane of life. Let us illustrate. If a race of people are unskilled in art, mechanism, and the blessings of civilization, that race can be elevated by training and culture so that the children will be born with an improved tendency toward art, mechanism, science and literature. If this be *not* so, how is it that a race or tribe ever reaches civilization? Breeds of *animals* can be improved rapidly, because the more advanced, the better cultured of them *only* are employed to continue the species; and the result is we have draught horses of great power and endurance on the one hand, and fleet race-horses on the other hand. It needs no argument to prove this, but simply the mention of the fact, that, within the memory of elderly people the

speed of trotting horses, has been raised from a mile in three minutes, to a mile in two minutes nine seconds and a fraction. It will not be disputed or doubted that in a section of country where mechanism is largely cultivated, children with a stronger tendency to mechanism are born than in other places where agriculture and non-mechanical pursuits are followed; and who will doubt that the children of educated people, where, from generation to generation classical and extended culture has been the habit of the people, children are born as it were "with a book in their hand," just as among wealth gatherers, children are said to be born with "a gold spoon in their mouth."

If a nation or tribe of people are warlike, from necessity, the new generations come into life maintaining the tendency to war and strife, and that tendency is increased from generation to generation. Mr. Chevannes, writing on Heredity says that "*men* are only the guardians of the accumulated attributes of their race, that they can not transmit their own *accumulations*." If this be so, how does it happen that any improvement can be made from generation to generation? It is generally understood among stock-breeders that colts sired by horses which have been bred to the harness, are more easily subjected and bro-

ken to the bit and bridle than are those colts which are the sons of horses not broken to the harness. It is often said that hunting dogs, born to parents trained to hunt are more easily trained into the duties for which they are bred than are those that are born of untrained parents; showing that animals transmit *their* accumulated attributes or attainments, or at least an aptitude in that direction.

The human race absolutely rises in the scale of brain development, bodily power, and length of life, and it comes from some source. We grow from a savage to a civilized and cultured state, and this increasing aptitude for culture is inborn. The cranium of the Northern United States Negro is far superior to his Southern brother of the same color, because the cold climate makes labor, thought and economy necessary for self-protection; there "equal rights," at least technically, have tended to develop his brain, and hence from generation to generation the Northern colored population has increased in cranial magnitude, and especially in the intellectual, constructive and economic powers; and, to the intelligent observer their heads are found differently developed. Moreover the Southern negroes are superior to the native African in his own home, arising from the influences of civilized life and contact with a superior race—we mean, of course, the full blooded negroes, not the mulattoes. To-day the faculties of Constructiveness, Acquisitiveness and Secretiveness which give ingenuity, economy and policy are more largely developed in the heads of the young white men of the South than they are in the heads of their fathers and grand-fathers. The truth is the South has been called to economize and construct, to study and think, and finance and manage, and it shows in an increased width of their heads within the last twenty-five years. This has given to the Southern head twenty per cent. more of economy and practical

power, and we see it in their form of head; and actual measurement by calipers will show half an inch more in width. If circumstances inspiring these economic faculties in the parents have cropped out in the children, will not these developments go on increasing from generation to generation?

I have made many observations on brain-development in different sections of the country for more than forty-five years, and have been forcibly impressed with the improvement of children in large families, the younger children having relatively larger brain, more development in the intellectual region than the older children born to parents that were not yet ripened by experience and strengthened by continued exercise of their intellectual and economic power.

There is another aspect to this subject viz: Special development from special causes. Nothing is more common than for a Phrenologist to find peculiar developments in certain children which do not seem to be represented in the other children of the family, or so strongly represented in the parents. Thirty years ago I was called to a family to examine the head of a boy five years old who had a marvelous development of the organs which give *energy, perseverance* and *self-reliance*. The crown of the head was lifted enormously high, and he was broad above and about the ears in the region of force, his muscles and bones seemed to be as hard as a monkey's, and he was quick and strong to a remarkable degree. Referring to the heads of the parents, they were found well developed in these regions, but not enormously; two other older children were fair representatives of the parents, but this boy represented an exaggeration of these faculties in the parents. Supposing there must have been some extraordinary state of facts which had acted upon the organic conditions of this child, the question was bluntly put, 'What were you doing in the way of business, and care, and re-

sponsibility, six years ago?" After a moment of silence the father remarked that he had a large contract for building a railroad, and it was on the Pine Barrens of New Jersey away from a population which could accommodate the laborers with board, and he went there and built a long shanty sufficient to supply 250 laborers, and his wife went with him to keep the house, and took enough female helpers to do the work; and while the father was bossing the men and pushing the business, and was keyed-up to the highest tension of self-reliance and determination and force of mind and character, and the wife on her part was managing the boarding-house phase of the business, the young subject under consideration received his incipient being, and was developed to within ten days of his birth, before the mother laid aside her unusual responsibility and went home. And now, said the father, we don't know what to do with the boy; he is so strong, willful and forceful, that he will climb hand over hand like a monkey on the wisteria vine to the third story windows of the house, and swing himself in, and when some one runs up the stairs to bring him down, he hears their approaching footsteps and springs from the window, as a monkey would, and grasps the vine and comes down, as a sailor would say with a run, to the ground. What shall we do with him? what will become of him? We replied that the boy was not to *blame* for having inherited a hundred miles of railroad; that whole contract was coiled up in his spirit, and would have to work itself out in some way. We were informed that he was a constant trouble and alarm to the family, that he would do just as he pleased. He was as strong as two children ought to be, and as headstrong and wild as it were possible for a human being to be.

Another case: A child some five years of age was brought to our office for my inspection and I found that Acquisitiveness, Secretiveness, Destructive and Combativeness were developed to such

an extent that any persons could notice it across the room. The head was about an inch wider in the region of those organs than elsewhere, as if one were to lay all his fingers on each side of the head flat, so were the sides of his head lifted out, bulged abruptly. Neither parent had so much development, and they happened to have one or two children with them, that were older, whose heads were normally developed. We asked this question, "Did you have a quarrel? Were your faculties of enmity and anger, suspicion and desire for gain, or fear of losing money aroused, *tremendously*? Did you have some quarrel with people on financial matters, or a quarrel in any way about business the year before this boy was born?" After a moment the mother said: "Yes, my husband's partner cheated him out of twenty thousand dollars and would have robbed him of every dollar he possessed but for the utmost vigilance and courage, and we were obliged (said she) to put men into the store with clubs to prevent the partner from carting off the goods in the night, and of course we had a world of trouble and were kept in an angry, suspicious and financially selfish state for many months." Those supereminently *active* faculties of the parents were reproduced in the child in a degree as strong as they had been made temporarily in the parents, and if he does not become an Ishmael, hard, quarrelsome, grasping, cunning and hateful, it will be a mystery, and a marvel of careful restraint. If red spots through any influence can become *natural* on a given face, why cannot certain faculties be inherited incidentally which lead us to tenderness, and honor, and affection, or devotion, as well as those that lead us to avarice and cruelty? The club foot and the cleft lip, and the various marks on the face and body are incidental yet natural; some reason underlies them; and nothing is more certain than that genius, talent, moral worth, aspiration, or special social affection, are the results of similar conditions

in parents which have been induced by circumstances that are uncommon, yet natural.

I conclude, therefore, that while we may not be able to follow, or establish, a rule for all cases, parents *do* transfer their induced states good or bad, their accumulated power and intrinsic worth and attributes to their posterity. Sometimes a special gift like that of Zerah Colburn, the wonderful calculator come solely from the mother. In another instance the inventor will transfer to his son the supereminent activity, and induced power which special conditions aroused in his mind ; and thus, what in the father was an induced excitement, becomes in the son constitutional.

According to the condition of parents morally and physically, for a year previous to the birth of each of their children, so may be the type and tendency ; in short, the character of the children, respectively. A year of joy may spread sunshine over the face of one child, a year of sadness may leave tear marks on the face of the next, which shall shadow

its whole life. Here it may be seen how the parents' crime or virtue may blight or bless a child's entire being. In the same family one may be born a tyrant, another a Shylock or a philanthropist, a poet or a debauchee.

Whenever we find a prodigal son who has a well-behaved brother, we may safely infer that the father has alternations of character, "from grave to gay," and that his sons are a record of his changeful states of life and character. Men are known to have temporary relapses from honor, rectitude and temperance to dissipation and its resulting debasement, and these contradictory states are embodied in the constitution of children. If we "sow to the wind we shall reap the whirlwind ;" if we sow to the better spirit, we shall reap immortal joys. The good which men do, as well as the evil, "lives after them ;" hence we have a basis for improvement and progress in man, even as we have in respect to fruits and animals.

NELSON SIZER

THE TRADE IN MEDICINE.

A NEW York newspaper lately alluded to this subject in the following terms :

It has been asserted that Americans swallow more physic than any other people on the globe, and a walk through Fulton and William streets where the wholesale dealers are located would readily convince one of the truth of this statement. It would take a book almost as big as Webster's Unabridged to hold a mere list of the various compounds, preparations and mechanical appliances of every kind that fill the numerous lofts of one of these establishments. The present stimulus to trade has been given by the cold snap. It is estimated that six-tenths of all patent medicines have for their professed aim the curing of coughs and colds or some one of the hundred pulmonary or bronchial complaints en-

gendered by the uncertainty of this climate. Accordingly the crowds of trucks that are backed up to the doors of the establishments every day are loaded principally with cough-mixtures to be taken as a liquid ; preparations made up in the form of lozenges to be slowly dissolved in the mouth with the object of relieving the throat troubles ; powders to be snuffed up into the nostrils to clear the nose ; pads of one hundred and one shapes containing various substances to be worn over the chest and lungs ; liniments for external application to the throat and chest, and then for the innumerable complaints that grow out of colds there is a frightful array of pills and potions, boxes and bottles, the mere sight of which makes one's head swim ; patent medicines for rheumatic troubles, patent medicines for pneumonia, patent medi-

cines for chills and apparatus for the cure of catarrh, preparations for asthma, no end of compositions of cod-liver oil for lung troubles, and so on through an endless list. A stranger looking at the mighty heaps of these medicines that are piled on counters and floors, and packed in boxes for their shipment north, south, east and west might fancy that the American people were a nation of invalids, and when one is told by dealers that the business is constantly growing and that every large city is a distributing point from which nearly as many of these medicines are sent out, is almost enough to convince a native that such is the case. The business in this city alone runs far up into the millions and is increasing in geometrical ratio.

A pharmaceutical Monthly in commenting on this gives us another view that is equally impressive: "That the American people swallow more physic than any other people in the world is probably true. One would argue from this that America is the best place in the world for physicians. But this is not the fact, or if it is, there is no paradise for physicians in any part of the world. Take the city of Philadelphia, for example. There it is that the corner drug-store flourishes. A new store started in the upper part of town recently did a busi-

ness of fifty dollars a day before the expiration of the first three months. Patent medicines are consumed there in large amounts. Yet there is comparatively little demand for the doctors who are living in that city, as elsewhere, from hand to mouth, with the exception of a lucky few. Who then treat the sick in this country? Mainly the patent-medicine trade and free clinics. The hospitals take most of the cases that should belong to the younger men in the profession, and a large number more constitute themselves their own physicians, until the medical profession has really become poverty stricken especially in the large cities. It would not be fair to say that the druggists are making great fortunes, for that would be untrue. Though they do, it may be a large business, expenses are great and profits poor. On some things the margin for money making is a large one; but the druggists are rapidly becoming mere merchants in ready-made goods in the shape of patent medicine, the manufacturers of which make all there is to be made."

Is the public losing confidence in the doctors? or is it because of a growing impression that in the great majority of cases the ready-made medicine is sufficient, and a doctor's services with the greatly added expense is superfluous?

IS MEDICINE A SCIENCE?

A truly scientific medicine is yet to be created."—Prof. JOHN HUGHES BENNETT, University of Edinburgh, "Practice of Medicine," page 4.

WE use the term Medicine in its broad signification to designate the great popular systems of medication whose practitioners are numbered by the thousands, and whose patrons by the millions. Do we also need to define the term Science? It can hardly be doubted that the word has come to have, in these days of speculation, an unfortunate vagueness; but once the facts of medical history and of practice are consistently set forth, we think the dullest mind will

discriminate between medicine and science, without necessitating any hair-splitting distinctions between *the science which is true* and that which is false.

Is medicine, then, a science? And if not a science what relation does it hold to human effort? It can not be doubted, we think, that human volition in every phase of it, is based on one of two forms of intellectual acquisition which may be termed *knowledge* on the one hand, and *opinion* or *supposition* on the other.

Between these intellectual states, we can conceive of no middle position. We act either from knowledge or from impulse immediately connected with our own thoughts. We know or we think we know, as the pre-requisite to intelligent conduct. The question whether or not medicine is a science may, therefore, be resolved into that other question, whether we consult physicians with the confidence of obtaining from them certain knowledge or only their opinions. Is it not true that the *physician's opinion*, and not his knowledge, is what the patient expects to receive in return for the payment of fees? and is it not also proverbial that an opinion obtained from Dr. A—will often be contradicted by

tion" so frequently heard suggests at once the importance as well as the uncertainty of medical opinions. These are frequently advised or required by physicians, for the purpose of hearing the opinions of their brethren, and giving expression perhaps to their own, the consultation, however, too often ending in an agreement on the part of the consultants to stand by each other in case of disaster, following some doubtful experiment on the patient's life, or the integrity of his organism;—unless indeed they choose to disagree, as in the engraving from the admirable group of Roger's statuary herewith shown.

The disagreement evident in the features of these empirics is hopeful rather



Dr. B— while Dr. C—will have a new theory and Dr. D—deny the conclusions of all of them; a state of things which could not occur if these men gave us knowledge rather than speculation; for definiteness, certainty and exactness are the characteristics of truth, while human opinions are as uncertain, inexact and changeable as is the human mind.

The very term "Medical Consulta-

tion" so frequently heard suggests at once the importance as well as the uncertainty of medical opinions. These are frequently advised or required by physicians, for the purpose of hearing the opinions of their brethren, and giving expression perhaps to their own, the consultation, however, too often ending in an agreement on the part of the consultants to stand by each other in case of disaster, following some doubtful experiment on the patient's life, or the integrity of his organism;—unless indeed they choose to disagree, as in the engraving from the admirable group of Roger's statuary herewith shown.

But it may be objected that medical opinions are not necessarily the pro-

duct of speculation, but represent ideas founded upon knowledge. This is a reasonable suggestion ; but it is proper to note that there are two classes of knowledge which may be called general and scientific, or perhaps, more properly, *primary* and *secondary*. Primary knowledge is that which belongs to infancy and youth, whether of the race or of the individual, and consists of impressions derived from observation and experience. Men are very apt to have a high opinion of the value of their own observations and experience, but human reason, as developed from universal experience, demonstrates that individual or personal experiences are the most unreliable things in the world. The crude notions of earlier years, the superstitions of savage and barbarous peoples, the uncertainties and absurdities of human action, all grow out of personal experience. The haphazard experiences of youth give most lasting impressions, and establish prejudices which even maturer years find it difficult to overcome. On the same principle the superstitions of race-infancy are developed and maintained ; so that to be restricted for knowledge to one's own experience is to retain oneself in barbarism or savagery. It is only after we have been educated to a knowledge of the verities of the ages, and trained to forget or overlook the errors of youth, that we can be said to have attained to any certain knowledge. Indeed the whole object of education is involved in the idea of training us to distrust appearances, and rely upon truth which has been demonstrated by processes of reasoning.

Secondary knowledge is properly described as the second view ;—as knowledge deduced from known truth and verified by experience. It is the mathematics, algebra, mechanics and astronomy, which give us rules for determining results, instead of leaving us the victims of false impressions, the dupes of error, the puppets of ignorant though innocent childhood.

To which class of knowledge does medicine belong ? Does it represent the sober second-thought, the demonstrated truth—the truth conceived as a theory and demonstrated by application ; or does it still continue to be a system of experiment direct with nature, its theories and its practices depending upon individual observation. The answer to the question is not doubtful. The declarations of the highest authorities are confirmed by every day experience. "Medicine," says an eminent author "is a science of observation, nay, it has been said to consist solely in observation." For twenty-five hundred years so-called scientific practitioners have been engaged in gathering facts, but no consistent theory has been discovered to explain the facts. The total absence of established principles in medical practice is not only admitted by all ; but it is a remarkable truth that practitioners are generally so unaware of the requisites of successful practice as to wholly neglect them. Hahnemann but repeats the sentiment of the great masses in declaring that "actual experience is the only *infallible* oracle of medical art," from which we may infer the infallibility of practitioners as well as of popes. But imposing claims must always be looked upon as suspicions.

None are so likely to be fallible, as those who seek to secure confidence by claims of infallibility. The scientist points to his principles as justification for his practice ; the empiric claims education—his diploma—his experience.

Science is the outgrowth of experience ; but until experiment has proved how deceptive experience is, we can have no science. We must not only observe and experiment but think, guess, imagine, preparatory to the discovery of the principle which explains the phenomena observed. The ignorance of childhood has always preceded the wisdom of age. The individual man as well as the human race, is daily learning that "things are not as they seem." The

real and the apparent have been demonstrated to be opposed to each other. The seen is from the unseen; the tangible from the invisible; the solid facts of crude experience are shown to be developments of existence too sublimated to be appreciable by our dull sense.

But though science begins with speculation and experiment it is much further along in the scale of mental activity than are these. Astronomy was once astrology, until Copernicus supplanted Ptolemy, and Newton demonstrated Copernicus. Chemistry was Alchemy before the laws of chemical combinations were established. Before Archimedes, that illustrious progenitor of mechanics, this was a system of hap-hazard experiment; and before Watts, Stephenson, Fulton, and Arkwright, human achievement was at least greatly restricted.

Every science has had its discoverer, from whose brain the infant Hercules has been launched, and from whose bosom came the fire which caused other minds to glow with the fervor of invention. True, "the child is father to the man;" science confers power and dignity; but it is also true that no child ever came spontaneously into existence. Science is knowledge born of the human soul, and it can hardly be said to be science until *conceived* in the mind of man and born in the lap of nature; that is, conceived as a theory and demonstrated by experiment. Does medicine recognize a father, an illustrious progenitor, to whose authority all shall bow, whose dictum all except, because of the truth of his theories, and the success of his practice?

Unfortunately for medicine it has had too many fathers, who have each in their turn proved to be false teachers. Truth is unvarying, unchangeable, always the same; but medicine, while it may have made some progress, does, as a matter of fact, compass the circle of practice every few generations only to return to the place of beginning. Each generation is engaged in denouncing as

a whole, or in part, the theories, and overturning the practices of its progenitors, and erecting in their places other systems, only to be overthrown by those who shall come after them. And so, generation after generation, the teachers grow bold in their inventions, and desperate in their claims, at first applying them *doubtfully*, then *desperately*, and finally, *confidently*, only to have them abandoned in their turn for the claims and pretensions of other imposters.

MEDICAL HISTORY.

Medicine, much as we have it to-day, began as a distinct profession, so history informs us, with Æsculapius, a Greek, who flourished about 1250 years before Christ. The Babylonians, Chaldeans, and other nations of antiquity had no physicians, according to Heroditus. It is generally supposed, however, that Egypt cultivated the healing art long before Æsculapius, though of this we have no definite information.

Æsculapius attained to sufficient repute to receive the homage of his own and many succeeding generations. Temples were erected in his honor, and he was deified as the god of medicine, to whom the priests presented the cases of the suffering multitudes. Patients were often persuaded that they held communication with Æsculapius in their dreams, of which the priests were the interpreters, or they received their remedies direct from the priests to whom they were pretended to be communicated by revelation. Finally, from being the oracles of the god, the priests became themselves physicians, so that the practice of medicine was for a long time a part of priest-craft, and was "taught with many occult and mysterious ceremonies, well calculated to impress the vulgar and to excite a belief in their miraculous powers." The Æsculapian temples were ancient hospitals, with the priests as physicians, while the remedies were usually of a kind calculated to do neither harm nor good; and were not

administered until sacrifices were offered, fervent prayers made, and the patient had been bathed, rubbed, manipulated, and subjected to fumigation, etc. Under this treatment, as under all other forms in which destructive measures are not employed, the patients generally recovered, after which they returned thanks to the gods and had the cure recorded on a tablet forever after to remain as encouragement to other sick ones.

"Such was the condition of medical observation in the then enlightened Greece," says Dunglison, "confined to the priesthood, and full of mystery to the uninitiated; but leading to a knowledge of numerous remedial agencies, such as hellebore, opium, squill, blood-letting, etc.," and "Where sensible agencies failed, recourse was had to charms, incantations and amulets, suggested by ignorance and superstition among the rude and barbarous nations of the present day almost as extensively, and confided in as implicitly, as in the cradle of mankind. *If the patient died, the event was ascribed to the will of the gods; if he recovered*—by virtue of those instinctive powers which are seated in every organized body, and without which the efforts of the physician would be vain—a case of cure was recorded, but no inquiry was made as to the precise agency exerted. To the charm, the incantation, the amulet was ascribed the whole result. Tradition handed down a knowledge of its presumed efficacy, and led to its employment in similar cases." "Would that we were much more philosophical even in the nineteenth century," continues this illustrious medical author. Certain it is that to-day as in the past, if the patient dies the event is ascribed to the will of one God instead of many; if he recovers, on the contrary, the healing virtue of the deadly poison is asserted, if not confirmed, without the slightest attempt being made to explain how the healing was effected. For there is not in existence to-day among medi-

cal practitioners any theory either of the nature of disease, or the method of operation of the medicine, which the intelligent physician recognizes as consistent or trustworthy.

But Æsculapius is not now recognized as the father of medical science, but only of medical practice,—a distinction with a difference. Under his reign diseases were conceived to be "emanations from the anger of the gods," and cure was to be effected largely by their propitiation. A strict regimen was rigorously inculcated; the temples were situated in salubrious places, and all that art could do toward stimulating the imagination of the patient was accomplished; but the more careful study of the symptoms and causes of disease was unknown. Many changes in medical practice have taken place since then, but it is not certain that these changes represents improvements. There is, indeed, abundant reason for asserting that the hygienic injunctions of ancient Greece were more nearly in accordance with the teachings of nature than those of our present medical professors.

Hippocrates, 500 years before the Christian era, is recognized by common consent as the true "father of medicine." He it was who first undertook to collect the fragmentary knowledge of his time and restore it to something of order. He classified and described diseases, investigated their causes, and adopted remedies for the removal of these causes. By the force of a great intellect, he conferred upon medical study so much dignity that even the learned of our day do not hesitate to quote him, if not as authority, at least as a teacher whose suggestions are worthy of earnest consideration. With him, it is claimed, medicine began *its career as a science*; but unlike Archimedes, Newton, Lavoisier, his right to the position of discoverer and father has been disputed by thousands who have denied his principles and rejected many of his practices. His description of disease in its more common forms, was remark-

ably correct, but of its *nature* he was scarcely more ignorant than are his successors of the present day. His practice was in some respects even better than theirs, and his success, we have reason to believe, corresponded. He knew nothing of the deadly compounds which chemistry furnishes to-day—the mineral salts, acids and oxides, which have since given to medicine an unevitable notoriety; but was restricted in his *materia medica* to the products of the vegetable world. He employed in his practice purgation, sweating, diuretics, injections, with bleeding, ointments, plasters, etc., but we find him frequently in advance of the modern practitioner in that he kept constantly in view the true object of the physician, viz., to remove obstructions to, and supply the conditions for, nature's operations.

After Hippocrates, there is nothing

worthy of note for some three hundred years, when the first regular physician, Arcagathus became a practitioner of medicine in Rome. Unfortunately for him, but no doubt well for the people, he had too much confidence in his remedies, his practice illustrating his confidence, and his patients died, and Rome was aroused to prohibit the practice of medicine by law. For more than a hundred years Rome was consequently without a physician, but as "the once proud mistress of the world," grown lofty by her conquests, and rich in all the arts of wanton pleasure, she began to decay in the first requisites of a great empire, a vigorous manhood, the art of the physician became a recognized desideratum, and soon again the sects were almost as numerous as those of their nineteenth century successors.

ROBT. WALTER, M. D.

WHAT WE SHOULD EAT.

A LATE writer sums up the argument in favor of vegetarianism as follows:

There is certainly a preponderance, though by no means unanimity of opinion among medical men in favor of a mixed diet; and though they have nothing whatever in the way of conclusive proof to bring forward, yet the mere weight of their opinion is naturally a great obstacle to the progress of vegetarian ideas. It is, in fact, a question on which no absolutely precise or scientific testimony can be forthcoming; it can not be proved one way or the other by any theoretical arguments, but must be left to the decision of that one infallible criterion — practical experience. All that food reformers ask is, that their system may have a fair trial; that being granted, they are confident that the recognition of the great practical benefit which results from the adoption of a fleshless diet must in the end triumph over all preconceived ideas. It is the

old story of the temperance movement over again; a reform which at first meets with nothing but scorn and ridicule, which is condemned by doctors as unscientific and impossible, is found on trial to be not only perfectly practicable and feasible, but in the highest degree beneficial and salutary. Thus it is now with vegetarianism; hundred who have tried it will bear witness (as I myself can, after five years' experience) to the immense benefit which the bodily health derives from this simple and frugal method of living, which has none of the exciting and stimulating qualities of flesh food, but induces a calm, strong and equable habit of body, together with far clearer and more vigorous powers of mind. In short, let those of my readers who have a will, try for a month or two the reformed method of diet, and they will soon learn to smile at the admonition of chemists and doctors.

I said that I regarded this question, the physical aspect of vegetarianism, as

one that can never be settled by any scientific authority, but only by practical experience. But I by no means meant to imply that the weight of scientific authority is entirely against the advocates of food reform—on the contrary, though the majority of the medical men of the present day are hostile to vegetarian doctrines, there is very weighty testimony borne by Linnæus, Cuvier, Ray, and a host of later authorities as to the frugivorous nature of man; the teeth, which are so often foolishly alluded to, as an indication of our carnivorous origin, have been shown again and again to be wholly unlike those of the carnivora; whereas the apes, who are nearest to man in bodily structure, are acknowledged to be frugivorous. Again, though ferocity is certainly a characteristic of the carnivora, it should not be forgotten that strength is chiefly found in the vegetable feeders; the elephant and rhinoceros build up their mighty frames without the assistance of flesh-food; the horse, the ox, and all the domestic animals whose strength is serviceable to man, are by nature vegetarians; in short, there are innumerable indications of the fact that the purest, most wholesome and most nourishing food for man may be obtained direct from the bountiful hand of nature, without any admixture of blood and slaughter. There are innumerable indications of this, though, as I said before, there is no absolute

theoretic proof; and for this reason I must end as I began, by asking my readers to take the word of no medical man on this subject, but to study it and try it for themselves.

The third advantage claimed by vegetarians for their system is one about which there is happily no doubt whatever. It is an indisputable fact that an enormous saving is effected by the disuse of flesh-food, and this is a consideration which is becoming more and more urgent and important, at a time when our food supply is giving rise to the gravest anxiety. Every householder knows to his cost that the butcher's bill is the most serious item of the weekly account, and the annual cost to the nation of breeding, rearing, transit and slaughtering of animals is something immense. All this expense must be avoided if we were only content to draw our food direct from the vegetable world, instead of first transforming it into an inferior animal. An abundance of cheap and wholesome food is always within our reach, but unfortunately, the majority of us prefer to starve in the midst of plenty, and to spend on the useless and questionable luxury of flesh-meat the hardly-earned sum which might purchase an ample supply of vegetarian fare that will grace the table of royalty. If only for its economy, food reform is well worthy of the serious consideration of all earnest and hard-working men.

DISEASED MONEY.

A WRITER in the *Manufacturer and Builder* gives some very pertinent advice on this subject:

In the numerous speculations as to the variety of ways and channels through which the germs of contagious disease may be disseminated, there is one to which but little or no importance has thus far been attached, but which, nevertheless, probably plays an important rôle. We refer to that universal circulating

medium—money. It passes impartially from the hand of the millionaire into that of the beggar, constantly circulating through every class and condition of society. The person of fastidious tastes, who will turn from his path rather than risk coming into actual contact with others of uncleanly dress or person will receive, handle and carry in his pocket without the slightest symptoms of disgust, or perhaps without giving it a

thought, money that has thousands of times passed through hands or reposed in pockets whose contact he would deem to be pollution.

In respect to the dangers that may arise from this cause, paper money is undoubtedly more to be feared than coin, and the indescribably filthy appearance of much of that which is seen in circulation is familiar to all who read this. That the handling of such nasty stuff is often fraught with serious danger, no sensible person can doubt. It would be well if the system said to be in vogue in certain countries of Europe, of destroying every note that comes into the banks and issuing new ones in their stead were practiced with us, though even this would only to some extent lessen and not do away with the danger.

But though paper currency is the most to be feared on the score of communicating disease, coin is by no means free from danger of the same kind. It has been shown that the blackish coating,

which may be seen in the recesses and in the milled edges of coins that have been in circulation for a short time, consists of organic filth which when introduced into distilled water and examined under the microscope was found to be swarming with bacteria and fungi.

We are not sanguine enough to expect that our readers shall decline to touch or handle the stuff, for the reasons here pointed out, but we can not refrain from uttering our protest against the unutterable nastiness, of which many persons are guilty who would feel themselves deeply insulted at any insinuation of a lack of refinement or good breeding, of placing paper currency or coin in the mouth for temporary convenience, while making change or the like. This most disgusting habit is, singularly enough, confined almost exclusively to woman-kind, and is an act of thoughtlessness which, if any who read this ever practiced, we feel sure they will never do again.

MACARONI.

THAT Italians are very fond of this product of their industry can not be wondered at as it is a food that pleases even an enemy of hygiene. The word "macaroni" is taken from the dialectic Italian *maccare* "to bruise or crush." The article is a preparation of wheat originally peculiar to Italy, where it is an article of food of national importance. Different forms of the same substance are known as vermicelli, pasta or Italian paste, taglioni, fanti, etc. These are all prepared from the hard, semi-translucent varieties of wheat which are largely cultivated in the south of Europe, and known by the Italians as *grano duro*. These wheats are much richer in gluten and other nitrogenous compounds than the soft or tender wheats and their preparations are more easily preserved which makes them more suitable for these pastes. They are made in various fanciful forms in a uniform manner, from

a granular meal commercially known as *semolina*. This semolina being thoroughly mixed into a stiff brown paste with hot water is forced by a powerful plunger through the perforated head of a cylinder into the various forms required. After this, the product is dried up rapidly by hanging up in long sticks or tubes over wooden rods in heated apartments, through which currents of air are driven. It is only genuine macaroni rich in gluten which can be dried in this way; the spurious, made of poor flour and colored artificially, will not hold together. Hence, when we find macaroni which shows that it has been dried in the described manner, we are sure of its genuineness.

True macaroni shows the mark of the flattened rods over which it has been hung to dry, is never mouldy on the inner side and does not crack or split as does the imitation which has been laid

out flat to dry. It has a soft, yellowish color, is rough in texture, elastic and breaks with a smooth, glassy fracture. In boiling it swells up to twice its original size without becoming pasty or adhesive, maintaining always its original tubular form without either rupture or collapse. It can be kept any length of time without alteration or deterioration, and is a most nutritious and healthful article of food. Many imitations are made in France, Germany and the United

States, the best of which are made of common flour enriched by the addition of gluten.

The proper way to cook macaroni says an eminent Italian *chef*— is to take a quarter of a pound of macaroni and sufficient water to cover; the water must be boiling before the macaroni is put in, and must be kept so while cooking for twenty minutes, stirring occasionally. Salt a very little, strain, and serve with tomato sauce or milk sauce.

NOTES IN SCIENCE AND INDUSTRY.

The Recent California Volcano.—EDITOR PHRENOLOGICAL JOURNAL.—In a late issue of the JOURNAL, is an article headed "*California Volcanoes*" giving an account of one reported to have been active as late as 1850, stating "it was noted at the time, or soon after, by both Dr. Trask and Dr. Hartness in a communication to the California Academy of Science." As there is an error in this statement it may be well to correct it.

In 1851 I was in that region of country in the discharge of my duties as Commissioner to make treaties with the Indians; and saw the volcano in action. At first I supposed it was signal fires of the Indians, they were then numerous and hostile. Some years subsequently, looking over "Hittel's work on California," it was stated that there were no active volcanoes in the State.

I informed him of my discovery. He published an article in the *Alta California* (of which he was one of the Editors) calling for information, whether any one had seen an active volcano in the State. It was finally answered by a published statement that a party had seen and visited an active volcano in 1851 giving the location; one of the party had his boots burnt in the flowing lava. The location was the same of which I had informed Mr. Hittel. The names and residences of the observers were appended to the report. Hittel then published an article in the same paper headed "Wozencraft's Volcano."

It was twenty years subsequent to my discovery (at least) that Dr. Hartness made the discovery of the evidences of a recently active volcano. The matter was duly

placed before the California Academy of Science. Mr. Hittel republished the old article with my name at the head as the discoverer. Consequently Dr. Hartness was then apprised of the fact, if he did not know it before, and could not have been ignorant of it when he volunteered the information to Captain Dutton and gave him to understand that he had discovered it. I have no particular desire to have my name attached to a volcano, or any other puffing establishment. Nor do I claim any merit in the discovery. I was not looking for a volcano, had not lost any, but as my long, hard name was attached to it, and as it may be the only means by which it may be transmitted to posterity, I desire it to remain where Mr. Hittel placed it. Please to publish this, that simple justice may be done, and oblige, very respectfully yours.

O. M. WOZENCRAFT, M. D.

Washington, D C., March 14, 1886.

The Russian Marsh Improvement.—The engineering undertaking, in which Russia has been engaged is so extensive as to secure special designation on the ordinary map of Europe. Situated on the Russo-Polish confines, the Pinsk marshes have become famous in Russian history as a refuge for all manner of romantic characters, and have remained an irreclaimable wilderness in the midst of a prosperous corn-growing region up to within the last few years. In 1870 the Russian Government first took in hand seriously the abolition of this wild expanse, which, owing to being perpetually more or less submerged and covered with a jungle growth of forest,

prevented not only communication between the Russian districts on either side, but also between Russia and Austro-Germany. Consequently a large staff of engineering officers and several thousand troops were drafted into the region, and these have been engaged on the undertaking since. Up to the present moment about four million acres have been reclaimed, thanks to the construction of several thousand miles of ditches and of canals so broad as to be navigable for barges of several hundred tons burden. Just now the engineers are drawing up the programme for next year, which comprises the drainage of 350,000 acres by means of the constitution of 120 miles of ditches and canals. Of the four million acres already reclaimed, 600,000 acres consisted of sheer bog which have been converted into good meadow land, 900,000 acres of "forest tangle," which have been prepared for timber purposes by cutting down all the underwood and thinning the trees; 500,000 acres of good forest land—forest oases in the midst of the marshes—hitherto inaccessible, but which have been connected more or less with navigable canals and thereby with the distant markets, and finally 2,000,000 acres have been thrown open to cultivation, although only 120,000 acres have been actually occupied up to now. Besides making the canals and ditches, the engineers have built 179 bridges, bored 152 wells from forty feet to eighty feet deep, and 425 from twenty feet to forty feet, and have made a survey of 20,000 square miles of country hitherto unmapped. When their task is finished, Russia will have effaced from the map of Europe one of the oldest and toughest bits of savage nature on the continent, and a few years will suffice to render the Pinsk marshes undistinguishable from the rest of the cultivated region of the sources of the Dnieper.

The Glacier of Alaska.—This glacier is said to be moving at the rate of a quarter of a mile per annum. The front presents a wall of ice five hundred feet in thickness; its breadth varies from three to ten miles, and its length is about a hundred and fifty miles. Almost every quarter of an hour hundreds of tons of ice in large blocks fall into the sea, which they agitate in the most violent manner. The waves are said to be such as to toss about the largest vessels, which approach the glacier, as if they

were small boats. The ice is extremely pure and dazzling to the eye; it has tints of the lightest blue as well as of the deepest indigo. The top is very rough and broken, forming small hills and even chains of mountains in miniature. This immense mass of ice, said to be more than an average of a thousand feet thick, advances daily toward the sea. It is not necessary for Americans to cross the Atlantic to see glaciers; they have them at home, and grand enough for the wonder seeker.

Extent of Bible Distribution.—

A friend of Christian philanthropy gives us the following facts concerning the enormous growth of four Christian enterprises.

The London Religious Tract Society was organized in 1799; the British and Foreign Bible Society came into existence in 1804; The American Bible Society began in 1816; The American Tract Society commenced in 1825. These four great Catholic societies, two in England and two in America, and respectively 87, 82, 70 and 61 years old, make together 300 years; divided by four we have seventy-five years, as the average age of each; and these four societies have each, by average, received over \$1,000 a day during their entire existence.

Together their money receipts are over \$112,000,000 in this the nineteenth century. The two Tract Societies, estimating their entire issues, have reached an average equal to about one two page tract, for every inhabitant now living on the globe. The two Bible societies, since the middle of this century, 1850, have averaged for thirty-six years, an issue of over 10,000 copies for each business day, while their issues for 1885 were more than 17,000 copies a day. Over 150,000,000 copies of all sizes have gone forth from these two sources during the nineteenth century. There are seventy other Bible societies, among the different nationalities of earth.

The Mithriac-Zoroastrian Worship.—The curiosities of Mithriac worship at ancient Rome leads Orazio Marucchi, in the October (1885) *Nuova Antologia*, to a discussion of the prevalence in the Eternal City of this singular Oriental faith, so spiritual in its tenets, so remote from the gross polytheism of the all-too-hospitable Roman pantheon. This was a form of Mazdeism founded by Zoroaster, with the Zendavesta

as its sacred book. The religion of Zoroaster revolved about two supreme incarnations, Ormuzd (light) and Ahriman (darkness), between which as mediator intervened Mithras, the *thcos ek petras*, who was believed to be generated as a flash of light from the contact of colliding bits of stone. He it was who offered the propitiatory sacrifice, and in his honor Zoroaster established a symbolic cavern, as image of the world, within which this expiatory offering was to take place. From this arose the custom of celebrating the mysteries of Mithras in grottoes, and of representing Mithras himself within the symbolic cavern. This Eastern superstition soon penetrated to the West, and its rapid spread was especially due to such favors of the Orient as Heliogabalus and Aurelian; whence, long before, Horace had said, "Jamdudum in Tiberim defluxit Orontes." Mithræa, or temples of Mithras, soon abounded not only in Rome but in Hungary, Transylvania, the Tyrol, France, and even Germany. A remarkable Mithræum was discovered at Ostia in 1860. The worship was accompanied by curious developments. The great Christian doctor, St. Jerome, records that successive stages of the Mithriac initiation went by the name of crows, mysteries, soldiers, lions, Persians, runners of the sun, and fathers, every one of which was accompanied by special and mysterious ceremonies. Soon these rites associated with themselves, or rather assimilated, certain symbols and elements of the Christian religion; imitations of the Christian rites of baptism and the communion were attested by Tertullian to exist; and finally Mithracism became the great rival of Christianity among the enlightened Romans, now ripe for a new religion. The superstition flourished luxuriantly till the year 392 after which it was proscribed by edict of Theodosius.

Where Was Christopher Columbus Born?—Seven cities contended for the honor of having given birth to Homer. There are as many claimants, says the Paris *Figaro*, for the glory of Christopher Columbus—Genoa, Oneglia, Boggiasco, Savano and several others. A new pretender is none other than the town of Calvi, Corsica. Christopher Columbus was not a Genoese, but a Corsican. It is to the Abbe Casanova, a learned investigator, that the honor is due of having called a halt to

what threatened to become soon the prescription of the ages. This nineteenth century Benedictine has consecrated his whole life to the accomplishment of this great work; the old archives of the Italian Republics, the dusty registers of the libraries of the Renaissance have at last yielded up the secret that race spirit has kept hidden so long. Corsica, subjected or rather in a state of rebellion against Genoese domination before, during and after the fifteenth century sought no other glory than to be found on the battle-field, under its heroes, the Ornanos and Sampieros, while the Abbe Casanovas of the day taught their countrymen that their highest good was to die bravely.

The most serene Republic, always on the lookout for gain, appropriated Christopher Columbus. The jewel was an ample compensation for the tribute which little Corsica stoutly refused to pay. The piece of robbery passed unobserved all the more easily as the town of Calvi, to which Genoa had left its magistrates, its customs, and a certain autonomy, had ended by contentedly accepting the Genoese domination. Whence the famous inscription still carved over its gate: "*Civitas Calvi semper fidelis*," A citizen of Calvi, especially if he brought any prestige to the Republic, was appropriated without ceremony, and the confiscation of the great sailor by letters patent, so to speak, chimed in harmoniously with the character of that commercial and speculative people. The little town of Calvi, now making preparation for the celebration of this great centenary, will at last see its name redeemed from an unjust oblivion. Perched on a rock, on the west coast of the island, Calvi was long deemed impregnable. Nelson thought it worth his while to come and attack it in person, and lost an eye for his pains. The English succeeded in capturing it, but, the Corsicans beat them out of it again. In the clear autumn evenings one can see from the summit of its citadel the dim outlines of the shore of the Continent and the spurs of the Maritime Alps.

Moral Teaching in the Public Schools.—The April meeting of the Academy of Anthropology was held in Brooklyn, April 6th. The principal topic of discussion was set forth in a paper by Rev. George S. Payson, which was read by Pres. Thwing, in which the writer said:

"Common schools—free, universal and compulsory—are the very foundation of a republic—the mould for national character; but the system has become unchristian, non-religious, scarcely recognizing the existence of God. So far as its manuals go "it is a godless system." In this respect it must be purified, and if it can not be it would be better to abolish it. Since neutrality in religion is an impossibility, these non-religious schools must be classed as positively irreligious, educating our youth in the feeling that religion is a matter of no consequence, if not giving a decided bent toward agnosticism and atheism." He next argues that there should be a change in the curriculum of the schools so as to admit of a system of religious, non-sectarian teaching. This is the one thing wanting—the one thing needful. "In the Empire State no fewer than 740,000 children of school age, nearly one-half of our future citizens, are not receiving any religious instruction from the churches, and in the schools where they receive compulsory education, they are receiving a positive tendency toward indifference to religious neglect, not to say contempt of religion." The subject can not be safely left to the family or to the church. Parents, in the great majority of cases, need religious training as much as their children. The Sunday-school system of instruction he considers inefficient, and must continue so as long as the day schools exhaust the mental vigor of the scholars. The objections to sectarian schools are insuperable for these reasons: They would not reach a large number of the children; they would check the intellectual progress of the country; turn every day schools into polemical gymnasiums; largely increase taxation; in many rural districts it would be impossible for the sectarian to contend with the State school in the breadth of its instruction; the sectarian school has been tried, and it has failed. If the family and the Church can not do this work, it must be done by the State."

Mr. Payson would have the Christian religion, if possible, taught in the public schools for the reason that this is a Christian country and has been repeatedly so declared by our highest judicial minds. The Bible ought, is his conviction, to be studied in the free schools. Its perfunctory reading is not enough. Its study might be made optional, but its lessons should be continu-

ally referred to as of supreme importance.

In the discussion that followed, Dr. Eltinge insisted upon the necessity of a liberal system that would not discriminate between the well-to-do and poorest classes; and while he fully appreciated the difficulty of finding a common ground for religious training, the necessity for some kind of moral teaching was too apparent to escape the notice of any one. Dr. Drayton spoke from some statistics drawn from both northern and southern states showing that common school education had not accomplished the purpose its early promoters expected, in diminishing vice and crime; that the proportion of offenders against the laws was even greater in those states where the free-school system was widely extended than in those states having a high ratio of illiteracy. The intellect of children was developed by the popular method of education while their moral nature was left to chance impressions. Dr. Edward Beecher said that true popular development largely depended upon moral and religious training, and some method must be devised for associating the development of the moral character of the young. The Rev. Mr. Chester and Prof. Cuthbertson also spoke at some length on the subject.

H. S. D.

The End of the World.—So many prophecies of the world's end have failed of late that it would be supposed that the prophets would be discouraged, but here is another as old as Mother Shipton's.

The following prophecy concerning the destruction of the world was made, it is said by Nostradamus, the celebrated French astrologer who died in 1566: "Quand George Dieu crucifera, Que Marc le renuscitera, et que Saint Jean le portera; La fin du monde arrivera." Which means that the world will come to an end when the feast of St. George falls on Good Friday, the feast of St. Mark on Easter, and Corpus Christi day on St. John's day. Such is the case this year.

The Indians of Alaska are skillful silversmiths, and their silver bracelets are in demand. A lame workman is in special repute; he sells dozens of bracelets at good prices on the arrival of each steamer. This Indian is a very rapid workman; from a piece of coin he will make a beautifully chased ring in an hour or so with his rude tools.



FOWLER & WELLS COMPANY., *Publishers.*

H. S. DRAYTON, A.M., M.D., *Editor*

NEW YORK,
MAY, 1886.

NATURAL DEATH.

Natural death is to die sweetly, without a sob, a struggle or a sigh. It is the result of a long life of uninterrupted health; of a long life of "temperance in all things," and such a death should be one of the ends and aims of every human being, so that we may not only live long, but in that long life, be able to do much for men and much for God. The love of life is a universal instinct; life is a duty; its peril or neglect a crime. We are placed on earth for a purpose; that purpose can be none other than to give us an opportunity of doing good to ourselves and others; and to be anxious to be "off duty" sooner than God wills, is no indication of true piety. The good man has one ruling, ever-present, desire, and that is to live as long on the earth as his Maker pleases, and while living to do the utmost he can to benefit and bless mankind, and to accomplish a long, active and useful life. The study how to preserve and promote a high degree of bodily health is indispensable. And it seems to have been ordained by a Providence both kind and wise, as a reward of a temperate life, that such a life should be largely extended; that its decline should be as calm as a summer's evening; as gentle as the babe sleeps itself away on its mother's bosom. —*Exchange.*

This beautiful consummation of a well-spent life involves far more than we can fairly understand. The moralist usually sets it before us as a possibility within the reach of most of us, and enjoins the zealous performance of duty, living at the same time in accordance with Christian philosophy and "near to nature's heart." But how is it when we consider the stern facts of human nature? "A long life of uninterrupted health," for how many does this seem probable? Ordinarily the child is born handicapped for the race by some constitutional defect. Even many of the men and women who have reached their ninetyeth year were puny and weak as children, but care and good sense in their training enabled them to triumph finally over physical infirmities and in maturity they became strong, were able by a prudent regard to the needs of their organization to preserve a fair degree of health.

Balance of organization, or a harmonious adjustment of the nutritive compensations to brain and body, is a prime factor in that relative condition we call health; and it is a most interesting study to note the phenomena of this relative condition as presented by different persons. My asthmatic friend, seventy-five years old and still attending to the daily requirements of his counting room, tells me to-day that he "almost strangled last night," yet he has been down town hard at work for several hours, and feels now bright and comfortable. Mr. T. whom I meet on the way to his desk with punctilious regularity, tells me for the twentieth time that he "coughed nearly all the blessed night, and his chest is very sore," and after a few min-

utes' chat he bids me good morning, executing as he does so a sprightly turn on his heel that makes me forget his sixty odd years and credit him with false pretenses on the consumption topic. I think of Carlyle's long contest with dyspepsia, and Cornaro's "early decline," and of other veterans who lived to a great age and died peacefully without the "uninterrupted health," while they were certainly "temperate in all things" but the condemnation of evil.

A high and noble purpose steadily kept in view has much to do with keeping that balance of organization that so much contributes to longevity. One man, to be sure, has the instinct of mere living stronger than another, and so may endure more physical trials than another, but the effect of high moral purpose is, we think, greater in promoting length of days than the mere vital instinct. The man who lives selfishly, allows his propensities to control in his conduct, has not the prospect of living as long as another who subordinates his propensities, making them the servants of intellect and the moral faculties, although the former may have a stronger body apparently, and his *Vitativeness* be larger. Mere desire to live is not necessarily followed by long life, but honest living in view of the obligations that rest upon us as men and women, and the cultivation of health as an instrumentality in carrying out our moral purposes, have a positive effect upon the continuance of the spirit in its physical case. Peter Cooper was for many years an invalid, and yet active and earnest to the close of his ninety-third year in the performance of his philanthropic work for the poor young men and young

women of New York. Who can doubt that his great aims prolonged his stay on earth many years, and helped him to die so gently and peacefully?

DECAYING PROGRESS!!

THE recent death of Desbarolles, the French palmist or diviner by the lines of the hand, has excited some comment, and sundry writers have found it convenient to lug in disparaging references to Gall and Spurzheim, as if there were anything in common between those great anatomists and a clever speculator in popular credulity, such as the author of *Les Mysteres de la Main* (The mysteries of the hand) was.

We are informed by these newspaper men that the art of palmistry has decayed, and in like manner the phrenology of Gall and Spurzheim is dying out. About sixty years ago Mr. Jeffrey of Edinburgh made a similar statement with regard to the phrenological system, notwithstanding that it had learned advocates in every prominent city of Germany, France, Holland, Italy and Great Britain, many of whom, like Otto, Fossati, Broussais and Elliottson, were delivering courses of lectures on the subject in the leading medical schools and elsewhere.

Usually our newspaper writers are credited with more than average sharpness of perception, but it would appear that some of them are in a state of obliviousness as regards the movements in the world of mental science, or they would not assume that the few unhappy mountebanks, who go about offering to measure a character for a quarter, represent the present status of phrenology any more than they would estimate the

position of medicine and surgery by the swarms of quacks and imposters in every thickly-settled place. We could name at this writing over thirty respectable and efficient men who lecture and teach the principles of Phrenology, and find acceptance with the better classes. Besides, the Institute of Phrenology receives a recognition from the public at large whenever its doors are opened, or its lecturers mount the platform, that indicates the existence of an interest that is far from moribund.

To us the future seems very promising, for the principles of phrenology are better known among educated people than ever before. What is true phrenology is being learned and appreciated by the thoughtful, whereas before various sorts of factitious and erratic notions had been extensively floated, with the aid of the platform and press, as the doctrines of Gall and his disciples.

If a system can be said to be decaying in proportion to the growth of its acceptance by the people, then Phrenology is going down hill with a rapidity quite satisfactory to its friends.

A BRIEF SYSTEM OF WRITING DEMANDED.

THE number of persons affected to some degree with writer's cramp, or pen palsy, is very large and increasing. To be sure, the trouble is caused frequently by other movements of the hand than those required in writing, and back of the perhaps excessive strain on the digital muscles is an unsound constitutional state to which, in most cases, the intelligent physician refers this nerve disorder. Yet the fact that so many people who earn their living by the use of

the pen are rendered almost helpless by it for a longer or shorter time, should compel more general attention to one pressing want of our civilization, viz: a shorter method of letter and word expression in writing and printing than that in common use.

A rapid penman can write about thirty-two words in a minute. Do we realize fairly the amount of hand movement that requires? the many rapid contractions and relaxations of the delicate finger muscles as the pen moves up and down, backward and forward, obliquely, in a circle, etc., to form the several letters? One who has looked into the matter estimates that to write thirty-two words of average size, the pen must traverse the distance of sixteen feet. Sixteen curves or turns of the pen are made in writing an average word; so if one is writing at the rate of thirty words a minute, he will make 480 turns in each minute; in an hour, 28,800; in a day of only five hours, 144,000; in a year of 300 such days, 43,200,000. The man, therefore, who made 1,000,000 strokes with his pen was not at all remarkable. Many men—newspaper writers, for instance—make 4,000,000. Here we have in the aggregate a mark 300 miles long to be traced on paper by such a writer in a year.

The development of shorthand, or stenography, indicates the side from which an improvement in our writing methods should be expected, and we think, did the masses of the people know the advantage of a good system of phonographic shorthand, they would demand its general introduction. Take the word *method* for example. To write this in the usual way requires at least

twenty up and down movements of the pen. In shorthand but five movements write it in the fullest outline, while in easy, abbreviated style two are sufficient, in correspondence with the two syllables that compose the word. A greater gain is seen when longer words are used for comparison. For instance the word *disturbance* requires thirty-four movements in the ordinary hand, but in shorthand but six or three are needed according as the full or abbreviated style is used, and it should be mentioned that to the practiced phonographer the abbreviated style is even more easily read than that with full consonants.

A few years ago the writer made a short tour in Europe, and wherever he might be used his knowledge of shorthand in making notes, being able in a minute's time to put down an item with enough of detail for any future use that was probable. In this way without the slightest inconvenience and at no loss of time several vest-pocket note-books were filled with gleanings (quite independent of the "guide books") that would prove a sufficient basis for two ordinary printed books of travel. This would have been impossible had I been compelled to write my notes in the old longhand.

Introduce a system of writing that will save three-fourths of the labor and time of workers at the desk and the larger proportion of cases of writer's cramp will disappear, while the status of society in morals and intellect will be substantially elevated.

A PROPOS THE STRIKES.

THE great movements in labor East and West can not be passed over with-

out a comment. We know that important interests suffer by strikes, that the entire community sustains loss that may be irreparable, yet we believe that results are to be reached finally that will prove of general benefit. Fundamentally the working-men and working-women have right on their side, however much they may err in the measures that are put into execution to secure for them a more favorable relation to their employers and to capital. Every intelligent observer knows that the tendency of capital, organized as it is to such a vast extent in this country, has been toward a sort of imperialism; railway and manufacturing corporations have grown rich and powerful enough to control national and state legislation to an extraordinary degree, and as a rule we do not find them actuated by motives of philanthropy or generosity, or sympathy; the general aim is to extend the field of their operations, to enlarge the possibility of gain, without regard to the injustice or injury that may be done to communities or individuals. To the working-man, the employe, whose labor is the source of the gain, but little consideration is accorded beyond his fitness as an instrumentality to further the *great* designs of capital. This is one of the sore points in the relations of capital and labor, and usually comes prominently to the surface in a contest.

When the time comes that the working-man shall receive equal consideration with the capitalist at the bar of the court-room and legislative-hall, the differences now so often arising, and the strikes that threaten consequences dire will no longer have a reason for development.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication :

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

FOOLSCAP.—G. B.—The origin of this term in its application to paper is historical and interesting enough to be repeated here. After Charles I. of England had been executed the new government of which Cromwell was the head set to work, and one of its aims was to remove everything that smacked of royalty. The paper in official use up to that time had as a water-mark the

king's crown; and when Cromwell was asked what should be put in the place of this crown, he directed a fool's cap to be put in place of the crown. This was done, and when Charles II. ascended the throne of England it was at first forgotten to replace the cap by something else, and afterward the king was afraid to do anything to recall things dangerous to touch, and so it was neglected, and the fool's cap may be seen as a water-mark on nearly all official papers in England. It was also used in America, but of late it has disappeared, while the word foolscap remains as an indication of a certain size of paper.

BROUSSAIS AND DELSARTE.—*Question* : In the publication "Indications of Character" by Prof. Drayton, on the 27th page, reference is made to the classification of the head into nine species by S. J. V. Broussais, of the University of Paris. Does his classification correspond with the "Criterion" of Delsarte, or is it only a coincidence?—G. M. R.

Answer : We think that Prof. Broussais' division was made long before Delsarte became known to the rhetorical world. Broussais lectured in the University of Paris on Phrenology over forty-five years ago, and he has been dead about thirty-eight years, was not far from seventy when he died. Delsarte died six or eight years ago, and we think that little or nothing was known of his views on oratory or expression until within twenty years.

PROMINENT EYES.—B. C.—The eye is sometimes protruded in conditions of disease directly or indirectly related to the organ. People who are short-sighted, constitutionally dropsical, or affected by hypertrophy of the membranes, have protruding eye-balls, but as a rule their appearance indicates the abnormal condition. The eye of health differs much from the eye of disease, and experience enables the observer to discriminate quickly between them.

MESMERISM.—G. S. M.—The mesmeric or magnetic power is possessed doubtless by everybody in some degree, but its exercise

in a form such as produces the trance in others and enables the agent to control their actions is limited, we think, to few. Ere long perhaps we shall understand the matter better, and be able to cultivate it as we do other faculties or powers of mind.

THE MEASURE OF LIFE.—S. V.—In our June number you may expect to read an article in which the method of estimating a man's longevity by certain head-marks will be described and illustrated. Several other inquiries besides yours will be considered in the article.

SCIENCE IN PHRENOLOGY.—J. H.—The method pursued by systematic phrenological observers is identical with that of scientific observers in general. The indications of nature are taken, and carefully compared and sifted in order to reach a practical conclusion. Many objectors appear to base their opposition to phrenology because we treat the mind in its relation to brain and physiognomy just as a naturalist or geologist treats lower animal life, or the earth's crust. We take habit, disposition, sentiment, feeling—character—and trace the relation with form and quality of structure, and endeavor to leave romancing and speculation out of the case as much as possible. Pursuing the method of Gall and Spurzheim, German and Italian observers have formulated a sub-science of Criminality, and the large exhibition at Rome recently was in illustration of the fact, they insist upon it, that the inveterate criminal has a certain type of head and brain—the two being correspondent. A study of this type shows that the savants who have thus formulated their principles differ so little from the phrenologists that it is not presumption to suspect that they have borrowed much from the books of disciples of Gall and Spurzheim.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

Psychical Experiences.—Under the heading of "Presentiment What Good" in the March number of the JOURNAL, "M. G." asks me if I can keep out of danger by being warned. In the January number I

made the statement that I had been warned of danger by impressions. By "impressions" I did not mean dreams but a foreboding, a feeling of awe, fear or dread, that comes over me. I do not remember of meeting any danger without being warned of its approach.

Once in the Southern States I started to see a friend to spend the night, but an impression told me not to go. I paid no attention to the warning any more than to call it a mere superstition, and went on. After traveling three miles I had come to a river which was overflowing its banks, and which I must cross to get to the house of my friend. I was still impressed that it would be better to return, but having gone so far I would not now turn back. A path led from the road, through the woods, for half a mile over logs and high places to a foot-bridge. It was late in the evening, and the path being covered with water I soon lost it and wandered around several hours before finding my way out. Wet and shivering I hastened to my friends, but found no one at home. As it turned out had I obeyed the impression I would have saved myself much suffering.

When a small boy I was impressed not to try to cross a river on a log. Not heeding the warning I ventured forth, the log gave way and I narrowly escaped drowning. Another incident: A friend and I went hunting grouse. When we arrived at the place where they were found we stopped to load our guns. A foreboding of danger came over me and I said, "Tom, don't go in front of my gun to-day. I feel as if something is going to happen." He said, "I hope not." It began raining and in a few minutes he was going to pass in front of my gun, but remembering what I said he turned back. Just then in some unaccountable way my gun went off. After this the foreboding vanished and I felt no more alarm.

Once while caring for a park in which a university was being built I climbed to the top of the building, through the framework, to study some birds' nests. It had been raining and I had on a long, oil-cloth coat. I was impressed to pull it off, but gave no heed till I had been to the top and returned to the second story, the impression becoming stronger all the time. After I had pulled off the coat and thrown it down the impression of danger left me. Whether anything would have befallen me or not

I am, of course, unable to state definitely.

The lady, "M. G.," will see that presentiments like the foregoing are good. I have been warned of approaching danger, being neither able to tell what it was or how to escape it. Once while looking after stock a dreadful foreboding came over me. I was walking along, in deep meditation, wondering what was going to occur, when my shepherd dog startled me by howling strangely at my heels. Looking round I saw him standing on his hind feet, his mouth frothing, his eyes green and glassy. I at once saw that he had an attack of hydrophobia and sprang out of his way. He plunged by and began biting everything he came to, among which were thorn bushes. The poor creature kept acting this way till he fell unconscious.

Referring to dreams, I can recall only three by which I was enabled to escape danger or trouble, and in those three the way of escape was shown. When I have a "prophetic dream" it comes to pass, and I seem unable to prevent it. I see, however, no special benefit in such dreams. While we are not able to see any good in many presentiments they show us that there is a science or principle yet to be developed, which may prove more beneficial than any yet expounded. C. H. BLISS.

Useful to Him.—I have been a reader of the *Phrenological Journal* since January '85, and am very much pleased with it; can not think too highly of its merits. There is a sentiment within the leaves of every number that awakens in every wide-awake reader a spirit of enthusiasm, ambition or energy, and reveals to him a field of improvement heretofore unfathomed. Before having your works I was not an observer of the laws of health; but from their reading I was induced to attempt reform, and pay more attention to my health. I have not made as marked a reformation, perhaps, as I should, but hope to secure those facilities which shall enable me to go on faster in the future. I wish indeed that I could more fully express my thankfulness for accidentally coming in contact with your publications.

J. S. M., Franklin Co., Pa.

PERSONAL.

F. SCHUMACHER, of Akron, Ohio, famous as a manufacturer of oatmeal, widely known

as a prohibitionist, and a generous contributor to the temperance cause, will have the sympathy of many friends on account of his recent heavy loss from fire, estimated at over \$500,000 above the insurance. It is said that he will not employ a man who drinks whisky or even beer, and had, when all his mills were running, several hundred employes, mostly Germans, all zealous prohibitionists like himself.

PAUL C. HOWE, for many years editor and proprietor of the *Prattsburgh News*, died February 25th last. He was well known in his town and county as a zealous enterprising man, interested in all reformatory and progressive matters. We knew and esteemed him as an old-time friend, and regret his departure hence.

EX-SENATOR JAMES W. BRADBURY, who is 82 years old, lives at Augusta, Me., reads without spectacles, and is a vigorous man. In the Senate of 1848 he sat with Simon Cameron and Jefferson Davis. "The latter's seat," he says, "was next to mine. Mr. Davis had the faculty of making more friends in a given time than any one else I ever knew, and was peculiarly sensitive to public opinion." Mr. Bradbury's favorite friend was Stephen A. Douglas, but he thinks that Webster and Calhoun were by far the greatest statesmen of their time.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

Presumption is the daughter of ignorance.
—*Rivarol*.

Rather do nothing to the purpose than be idle, that the devil may find thee busy.

Education begins the gentleman but reading, good company, and reflection must finish him.—*Locke*.

A ruddy drop of manly blood
The surging sea outweighs;
The world uncertain comes and goes,
The lover, rooted, stays.—*Emerson*.

Him whose mind has gone to decay, engage and entertain with the past; the simpleton with the future; but the wise man with the present.—*Hindu (Mahabharata)*.

Philosophy triumphs easily over evils past and evils to come; but present evils triumph over philosophy.—*La Rochefoucauld*

Did you ever think that the temperance cause in this country would undoubtedly triumph if every man's elbow should suddenly grow stiff? It's that fatal elbow joint which is at the bottom of the mischief.
—Cook.

The eyes of other people are the eyes that ruin us. If all but myself were blind, I should neither want a fine house nor fine furniture.—Franklin.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

We've often seen the spectacle of an auctioneer attempting to sell fifteen thousand dollars' worth of goods to an audience whose aggregate and tangible assets wouldn't foot up five dollars.

When we have a felon on our finger, and a double-barreled toothache to boot, there doesn't seem to be much consolation in remembering that we were not drowned last summer.

An Irishman, hearing of a friend who had a stone coffin made for himself, exclaimed: "Faith, that's good! Sure an' a stone coffin 'ud last a man a lifetime!"

"Doctor," said a man to Abernethy, "my daughter had a fit and continued half an hour without sense or knowledge." "Oh," replied the doctor, "never mind that; many people continue so all their lives."



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

HEADS AND FACES.—How to STUDY THEM.—Fifteenth Thousand—8vo. pp. 200. Price, paper 40 cts. Cloth \$1.00.

The rapid sale of this but recently issued book indicates its popularity, and it is a deserved popularity. Not only is its price very

low, but the character of its matter is not surpassed for practical usefulness by any other recent book in the American market. The subject discussed is character in its relation to face and form, and it is presented concisely yet systematically in accordance with the most approved of modern classifications. The easy, flowing style of language chosen by the authors is suited to all classes of readers, while the abundance of illustrations, the great majority being portraits of men and women of reputation in some stage of life, makes every description vivid. Certainly, few treatises on science of the popular type possess the clearness and comprehensiveness that are so marked in "Heads and Faces," and however much educated people may differ in opinion with regard to the principles advanced by the experienced authors, their general verdict after reading the book is that it is a most attractive and instructive volume, and well deserves to be read by everybody.

PUBLICATIONS RECEIVED.

INEBRIETY AND HEREDITY.—A paper read by S. D. Crothers, M. D., Superintendent of Walnut Lodge Hartford, before the Temperance Institute of the Presbyterian Churches of New York City. A scientific appeal for the regulation of the liquor traffic founded on facts and experiences that are terribly true. We should like these facts to be brought to the notice of every man who has any part in the legislation of state or county. Dr. Crothers is doing a conscientious work.

CHRISTIAN THOUGHTS, for March-April, discusses certain topics of current interest in terms that are worth a thoughtful perusal. Notably we have "The Relation of Art and Morality." "The Reason why some Honest and Thoughtful Men reject Christianity," "The Fulness of Time," "The Bible for Mohammedans."—W. B. Ketchum, Publisher, New York.

HARPER'S MAGAZINE for April appears fresh and bright, with a long list of rich designs. "Their Pilgrimages" is a running commentary on prominent sea-side resorts, Fortress Monroe, Cape May and Atlantic City, being illustrated—"Going down to the Sea in Ships" is an historical account of early navigation—"Neapolitan Sketches," will stimulate the readers's thirst for travel, "Plebeian and Aristocratic Pigeons" is prettily decorated with bird views. The Editorial departments are well stocked.

In the April number of *Lippincott's Magazine*, under the general heading of "Our

Experience Meetings," Julian Hawthorne, Edgar Fawcett, and Joel Chandler Harris give an interesting sketch of their literary career, as seen from the inside. "Two days in Utah," by an Impressionist, "On Both Sides," "A Vacant House," "Scores and Tallies," "Taken by Siege," "Daughters of Sappho," and a "A Bachelor's Blunders," are all readable and for the most part combine vivid elements of information with entertainment.

JOHN B. GOUGH: His Anniversary Addresses before the National Temperance Society, and sketches of his life, by Theo. L. Cuyler, D. D., and Rev. Joseph Cook. Another appreciative memorial of the great apostle of reform, from suitable sources. Price 10 cts. J. N. Stearns, Agent, New York.

IN THE HOMILETIC REVIEW for April Prof. Smyth, of Andover leads with a discussion of "Probation after Death." Dr. Howard Crosby replies to Dr. Johnson on Prohibition. We have also papers on the "New Theology," "Modern Criticism in its relation to Christianity," "Insomnia," "Seed thoughts for Sermons," and a good variety of miscellaneous topics and incidents.—Funk & Wagnalls, New York.

THE POPULAR SCIENCE MONTHLY for April contains an article by Hon. D. A. Wells on "An Economic Study of Mexico." Another is contributed by Mr. Herbert Spencer, on the doctrine of natural selection. We have also a paper on "The External Form of Man-like Apes," Prof. Huxley's second reply to Mr. Gladstone, besides "The French Problem in Canada," "The Argument against the Restoration of the Whipping-post," "Botany as a Recreation for Invalids," "The Hand-work of School Children." A portrait and sketch are given of Huygens, the Dutch Astronomer and Physicist of the seventeenth century.—New York: D. Appleton & Company.

LAW AND ORDER.—A new weekly devoted to the discussion of questions now profoundly agitating the public, in departments of labor and sociology; a new literary "annex," is edited by Miss Callie L. Bonney of Chicago with the vivacity and refinement that characterizes all her work. L. & O. Co., Boston.

THE CENTURY MAGAZINE for April continues the pleasant glimpses of Italy from a tricycle, describes Toy Dogs, gives three accounts of the celebrated Alabama, of Confederate Navy reputation, and several other fresh contributions in the history of the Civil War. The art work of the number is up to the usual high standard, with improvement, it seems to us, in the fidelity of the portraits to nature.

CURRENT EXCHANGES RECEIVED.

The Keynote: Representing art, literature and society, especially the drama. New York.

Christian Advocate: Methodist Episcopal. Leading organ of the Denomination. Phillips & Hunt, New York.

The Florida Cultivator: Energetic and Progressive. Southern Sun Publishing Co., Palatka, Fla.

The Farm and Garden: So well established that no special commendation is required. Child Bros. & Co., Philadelphia.

The Independent: As full of news as ever concerning affairs in church and state. New York.

The Youth's Companion: Scarcely equalled by any other publication in its line. Perry, Mason & Co., Boston.

Building: Devoted to the interests expressed by its title and always instructive. New York.

The American Electro-Clinical Record: Belongs to the progressive branch of medicine. Henry Sherry, M. D., Chicago.

The Graphic: Illustrated Weekly; Evidently prosperous. Cincinnati, O.

Germantown Telegraph: Family and agricultural. Philadelphia, Pa.

The Theosophist: Abounding in discussions of the occult, magical, mystic and evidently growing in public consideration. Madras and London.

The Critic: Book reviews and current literature. Messrs. Gilder, Editors, New York.

The Cincinnati Medical News: One of the best representatives of Western medicine. J. M. Thacker, M.D. Cincinnati, O.

Home Journal: The old society organ. New York.

The Southern Cultivator and Dixie Farmer: well arranged and comprehensive in its matter. Atlanta, Ga.

St. Nicholas: Still one of our most taking juvenile monthlies. The Century Co. New York.

The Day Star: Independent and liberal in opinion, as it claims to be, without excess. A. Delmont Jones. New York.

The Rural New Yorker: Good reading for the farmer and his family. New York.

The Christian at Work: Interesting, as regards religious matters, and in the main, liberal. J. N. Hallock, New York.

New York Tribune: Pursues its old policy with undaunted spirit. New York.

The Churchman: Late numbers indicate a progressive tendency, which is hopeful. New York.

Illustrated Catholic American: A well arranged publication. P. V. Hickey. New York.

Christian Herald, and *Signs of our Times*: Works for missionary interests at home and abroad. New York.

New York Observer: Conservative and strong in the old paths. New York.

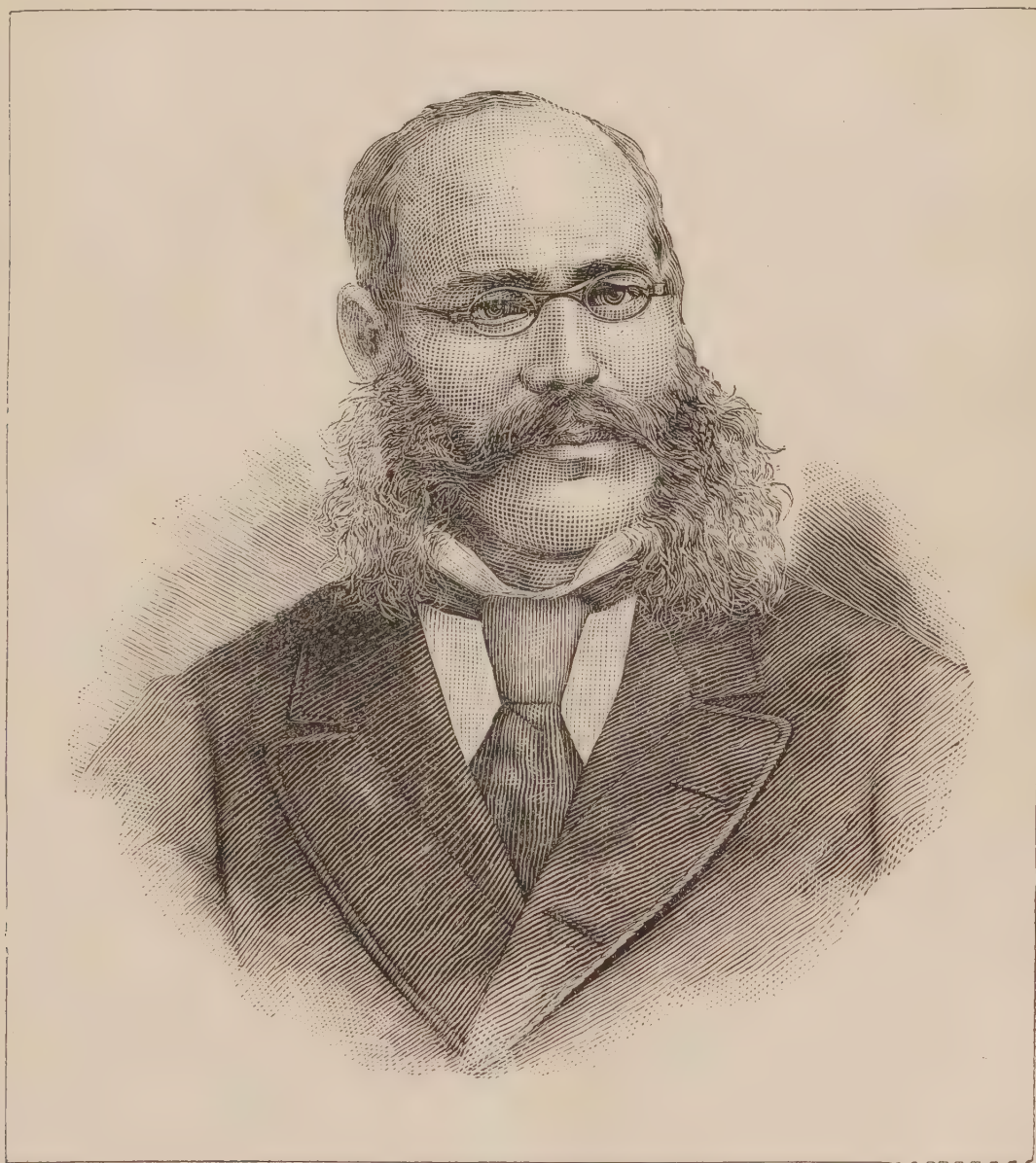
Our Little Ones and the Nursery: Late numbers exceedingly well gotten up and appropriate to their sphere. The Russell Publishing Co., Boston.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 82. 1886.

NUMBER 6.]

June, 1886.

[WHOLE No. 570.]



SIR RICHARD CARTWRIGHT.

SOME time since the subject of the accompanying sketch, being in New York, obtained a chart character from Mr. Nelson Sizer. For certain reasons, probably connected with his public position, he did not acquaint the professor with

his true name. Recently, however, Mr. Sizer discovered that the gentleman whose character he has described below was Sir Richard Cartwright, for several years Minister of Finance in the Dominion of Canada, and of late one of the chief leaders of Her Majesty's loyal opposition in British North America. It may interest our Canadian patrons to know what opinion the Professor formed of one of their leading public men while in complete ignorance of his name, history, and position. Having solicited permission to publish it, we attach the

PHRENOLOGICAL CHARACTER.

You have a strong and solid organization. Your head, measuring 22 1-4 inches, is above the full size, and then it is so developed that that measurement does not fully represent its size; it is high in the crown, rather strong in the back region, and these two developments give, first, steadfastness and self-reliance with ambition and prudence; the second gives social impulse, power to coalesce, ability to harness others with you in that which ought to be done. A third point, which marks you, is the ability to gather knowledge readily and to be practical; to bring that which you know to a focus and back it up by your force and power and positiveness. As you go out into life and see and decide for yourself, you acquire facts rapidly, and on these you form your judgments. You are not what we call a hard, dry, abstract thinker, but you are one who combines facts into thoughts instead of pondering upon the domain of thought without any regard to the realm of things. You can work up your facts into ideas; hence as a scholar, your place would be in the field of natural science and natural history; metaphysics would not invite your attention, except such metaphysics as the lawyer appreciates.

Speaking of your temperament and constitution a little more fully we would say, that you have inherited from a long-

lived ancestry toughness, vitality, endurance and power, and so you ought not merely to live, but to live royally with strength. You have, first, the Motive temperament, which gives you firm, strong features, a high crown of head, and an angular appearance. It gives also size of bone and firmness of muscle. We accord to you a pretty good share of the Vital temperament, because you have large lungs and good digestion and fullness of figure and weight; we give you the Mental temperament, or nervous, in lower degree, because you could carry with your size of body a head measuring twenty-three and a quarter inches instead of twenty two and a quarter.

The form of head in your case resembles the Scottish more than any other nationality, and many of the strong traits that belong to the Scottish must be manifested by you. They are remarkable for Firmness, and that is one of your leading traits. You have rather strong Self-esteem, which gives you the spirit of independence. You have Approbativeness enough to give you the desire to excel, and a tendency to ride the crest of the wave. You would like to walk the quarter deck instead of forward. You are willing to take responsibility, and feel best when you have as much responsibility as you can carry; and from boyhood, from the day you played your first game of marbles, you have been a controlling factor in affairs. You would make a good business man, and would drive your business; you would even drive ahead in your pleasure excursions and work as hard in that direction as if you were a pioneer and had to do it to exist. You might fall back on a few days' rest, but when in this you harness yourself for a grand entertainment, it means work, such as fox-hunting-on-horse-back in England means; and if you were used to that, you would like it as a pastime.

You are known for integrity, for the love of justice, for a disposition to do the square thing. You have no patience.

with those men who incline to work *sub rosa*, and are always running some selfish project. You would be more likely to do as Commodore Vanderbilt did, keep out of "rings" and be the master of what you could control.

Your Reverence gives you a feeling that there is a Power on high, and that when you do right all that is good and great and wise backs you, and you feel very much when you do the right thing as a man does when he is doing the multiplication table. He knows that when he follows that, the Lord of Wisdom is backing him, and will indorse "three times three are nine," and "nine times nine are eighty-one." Truth squares with truth; and when men are doing the truth they know that the God of Truth is with them, if they have Veneration enough to feel that sensation, and we think you have. In regard to what other men may believe and what methods they may adopt to express their belief or devotion, you may care less; but you will have this sentiment pretty strongly in your mind, a belief in the Fatherhood of God and the brotherhood of man.

If you had been trained to a place or pursuit that demanded talking, you would have been able to take a good position in it. You have ability to express yourself with crispness and with a sufficient scope and fullness to cover the ground. Your intellect is sufficient to take in all the principles, and your Language to explain all the phases of the subject, and if you were a lawyer you would make the jury see the case as you did. You would explain to them whatever you wished them to think or know on the subject.

Your Cautiousness makes you watchful and guarded in whatever pertains to safety. You are not so much inclined to be politic and reticent in reference to your speech as you are to be wise and prudent in reference to your position and plans. When you get started to say anything you generally talk it in such a way as to express it fully. It is not common

for you to be misunderstood by those whom you wish to enlighten on a subject.

With your executive force and practical talent, you will generally see what it is safe to do, and you will push your enterprise, and your Caution will always be on the alert for danger and for difficulty, and it will lead you to look out for difficulty far enough ahead to get ready for it, so that you will not get into close quarters.

We do not recognize you as particularly selfish in matters financial, but we recognize in you a man who can take pretty good care of money, and would show as much skill in administering as in making money. If you were in public office you would be known for insisting on economy in public matters; not in smallness of expenditure, but in getting back a dollar for every hundred cents that were put out.

If you had railways to manage, you would build the bridges of rough granite, iron, or other enduring material, and the beauty you would have in the cars where the people rode. You would have the strength, the majesty in the outer structures. We call that economy; and your desire for gain works more in the economical line than in the acquisition line; you would therefore be less likely to fail than most men, because you would shorten sail when necessary; you would invest safely the earnings you had made, and you are so anxious to be master of your situation that you dislike to be cornered financially, or in any other way. It would be like you to have a pretty strong balance in bank, especially when other people were running light in the balances. You would cease operations if times were getting hard, and gather up your strength and hold it in reserve; and then, when property was obliged to be sacrificed by those who had been over-trading, you would be able to use your surplus capital to a good advantage. If we may say it, you would scent the storm in the distance and get

ready to meet it yourself, and possibly pick up some of those who had been wrecked, and thus your prudence and your spirit of economy work together and we think your common sense indorses it.

With this you are a generous man, especially to your friends. Not many strong men like you love little folks better than you do, and it would give you as much pleasure to make the little folks happy at Christmas and at other times as it would them ; and you live your life over in a little child, and that is a very innocent way of recapitulation.

You believe in woman, and she is true to you. You inherit enough from your mother to give you a sympathy for woman, and enough of your mother's nature goes into your intellect to give you intuition ; a quick, sharp sense of truth without a process of dry logic. It comes as the intuition of beauty or danger or grandeur strikes a man on the instant.

Your first judgments are generally your best, and if you vary from them in the execution you are more likely to regret it than otherwise.

In affairs we would place you where they are large and important. In commerce, you should be connected either with manufactures or importations or both, or we would put you into law, in the professional field, unless in the medical, you could have a chair in a college. Your large social nature would make you acceptable in families as a physician, and your talent to talk and appreciate truth and to utter your views as a teacher would give you ability for the chair, in a college, teaching science. The law would enable you to "box the compass," as the sailors say. Evidently, you are not organized to go on tip-toe through the world or to tread lightly. You are organized to march through the world as a man who has a right to be seen and is not afraid of it ; as one who has duties to perform and is able to do them. S.

Kingston, Ontario, Canada, December 4, 1835. He is descended from an English family that settled in New York prior to the revolutionary war. His sympathies being with the "mother country," the grandfather of Sir Richard, Hon. R. Cartwright, removed to Kingston in 1775, where the family have since resided.

The restless, aggressive spirit of the subject of this sketch led him into active political life at an early age. He was elected to Parliament when but twenty-seven, and of his twenty-three years' services to the Canadian public twelve have been marked by high official position and prominent leadership.

Ever a strong opponent of the Protective tariff system and an enemy to high taxation, he has fearlessly defended his views, contending that the bulk of all, and especially of indirect taxes, falls on the poorer portion of the people ; that high taxation is especially injurious to a country having large areas of unoccupied lands awaiting settlers. He is also a strong Federalist, and opposes the project of uniting the several provinces in one Legislative union, arguing that the interests and prejudices of the various communities are much too diverse to warrant any closer form of government.

A warm advocate of a closer alliance between the British Empire and the United States, he has clearly recognized the fact that one serious obstacle to that desired end is the unhappy condition of Ireland. On his mother's side, Sir Richard Cartwright is descended from an Irish family of consideration and marked ability, many of whose members held colonial appointments of importance prior to the Union, hence he has always manifested an interest in Irish affairs, and advocated the establishment of a local government in Ireland.

That Canada should prepare herself for independence is one of the strong desires of his patriotic nature, but, in all his speeches to that end he insists that independence should be so secured as to

Sir Richard Cartwright was born in

maintain friendly relations with the mother country. Clearly recognizing the fact that with a cosmopolitan population many new questions and emergencies arise, Sir Richard advocates an admixture of the English and American systems of governmental administration. He also approved the admission of women to all the professions and occupations for which she finds herself fitted. He is bold and fearless in his opposition to the present system of representation as established in England and Canada, and has subjected himself often to the merciless criticism and bitter enmities of the advocates of the old system by asserting, that it offers a direct premium to fraud and corruption. Like Mr. Gladstone, the present Premier of England, he began his political life as a strong Conservative, and has gradually developed into a strong and determined supporter of the Liberal cause.

Probably few statesmen, either in Europe or America, have such vigorous enemies and such zealous friends, who will after all unite in the sentiment that Sir Richard Cartwright is conscientious, brave, eloquent and sincere. The following extracts from a speech delivered at Toronto, and which the *British Whig*, of Kingston, characterizes as "a masterly effort," will give the reader some idea of the aims and ability of the man :

"I think that at the present time, partly from the causes to which I have alluded, and partly from certain special circumstances, you are confronted with a combination of sinister interests such as has been rarely seen before in any country having free representative institutions. Those interests are of various kinds. They are engineered and headed by a band of politicians whom even their own supporters, while they claim that they are adroit and talented men, are obliged to admit are unscrupulous, and reckless, and careless how they attain their ends, provided only they can attain them. Behind these there comes a great array of various sorts and conditions of

men. Here are a number of contractors, who find that it is easier and pleasanter to amass fortunes by the expedient of subscribing to testimonials to influential ministers, or aiding in that or the other political election, or subsidizing a newspaper here and there, or by any other of the hundred ways that will readily suggest themselves to old and experienced politicians who desire to promote what they are pleased to call the welfare of their party. We have, besides, a small but extremely powerful body of monopolists, especially railway monopolists, whose interests, no doubt, are great, but can not by any possibility be reconciled with the true interests of the people of Canada. Then you have a whole army of place and subsidy hunters, influenced by much the same motives. You have, lastly, that class of men (and their name is legion,) who may be found in all countries, whose idea of government is not that Government should take care of the interests of the whole people, but that Government exists for the purpose of granting special favors to special friends. These men, to do them justice, have been wonderfully organized, wonderfully disciplined, wonderfully drilled for their work by a Past Grand Master in the Order. I say this—that in Canada to-day, although we have the form of a free Government, we have not got free government at all. We have got to-day a well organized system of government by bribery, the like of which had seldom been seen in any country.

* * * *

Practically, as everybody knows, there is always in the background, situated as we are, a small country alongside a great one, the possibility, and in the minds of some people the desirable possibility, that we may be absorbed into our great republican neighbor. For myself, I say frankly that to me that has always appeared as an ignominious surrender; as only one form of national suicide. I say that, however great the people of the United States may be—and I do not

desire to diminish their greatness one whit—however excellent their institutions, I think there is enough vitality and strength in Canada to insure more than the mere merging of our national existence in that of the United States. I am not in favor, even if I were better convinced than I am that it would be for our material advantage, of bartering our birthright for a mess of pottage. Whatever the history of the United States may be, it is one in which we have no part; and I believe it is true of nations as it is of individuals that neither men nor nations live by bread alone, nor by mere material considerations; and therefore, though I can not ignore the fact that there are among us some who desire to seek that refuge, I can only say that I should regard it as a distinct lowering of our position, as much so as if one of you owning a small farm were to sell it to a richer neighbor, and agree to become a tenant of the land which you formerly held and controlled. Then,

there is what is a natural and obvious thing—the possibility of Canada in a short period becoming an independant power, and acquiring an independent existence. That is a matter to be discussed, to be seriously and gravely discussed. I will venture to say that if Canada desire it, and when Canada thinks herself fit for independence and chooses to ask for it, no English statesmen will be found in the least degree disposed to place barriers in the way. But I am bound as an honest man to tell you that in my judgment, and in the judgment of those well entitled to speak, that time has hardly as yet come. Canada is not, as I have pointed out, a very homogeneous country. A very considerable, needless weight has been placed upon us; needless impediments have been placed in our way by that miscalled National Policy, which, as I have shown, has greatly and grievously exhausted the resources of the Dominion.

S. D. E.

FAMILIAR TALKS WITH OUR YOUNG READERS.—NO. 6.

LOCALITY.

WE have looked into the nature of nine or ten of the mental faculties so far, and I trust that you find our study of mind in this way really pleasant. To tell the truth, when I was a boy of sixteen or seventeen, and my teacher gave me lessons in a book on Intellectual Philosophy—that was the title—and expected me to make good recitations of them, I thought that I could never learn them. The definitions and explanations seemed to me the driest, hardest stuff I had ever met with, and when I made any attempts to answer the teacher's questions they were only in the words of the book, as I could remember them, without the slightest notion of their meaning. I sometimes asked what such and such a statement meant, and was usually told that it was "certainly clear enough," and I had

only to take the words of the lesson-book, just as they were, to find little trouble in understanding what they meant. So my questions were for the most part answered by a repetition of what the book said, and I concluded that it was all due to my thick, stupid head if I could not get hold of the nature of *simple* and *compound conceptions*, what the *will* was, and how the *feelings* acted. In algebra, geometry, history, natural philosophy, rhetoric, I found it all easy sailing, and loved such studies, but my ideas were hopelessly mixed when they tried to solve the problems of intellectual philosophy,

Some years after leaving school I tried intellectual philosophy again, and because my brain had grown, perhaps, and my mind matured, I found that I could get a little light on the structure of the

mind, but it was not until I read Mr. Combe's "System of Phrenology," that the day really opened, and I saw clearly how the mental faculties grew and were related to each other; and then came real pleasure in mental studies.

Some writers in "Metaphysics"—which is the old and general name for the study of mental philosophy—say that a high class of mind and a great deal of special preparation is necessary to understand the subject, because it is so abstract and complex. That is probably true in the way that they write about it, and the massive volumes given to the world by such learned men as Kant, Brown, Reid, Stewart, Porter and Hamilton are enough to intimidate any one who is fresh to the subject, especially a youth in his teens. But, my young friends, you don't need any persuasion to believe that everybody should know more about himself than anything else, and, as the mind is the most important part of our human nature, that we should all know as much about its constitution, its functions and workings as we can. The phrenological writers generally claim that it is the duty of every one to study himself, to know as much as he can of his body and mind, and that to neglect self-study, or to make it secondary, is to invite failure and unhappiness in one's life. Now a-days a good deal of attention is given to physiology in the schools, because people have become convinced that children ought to know how their bodies are made up, and something about the digestion, breathing and circulation, and how to form good habits of eating, exercise and work. The action of the brain has to do with physiology just as much as the action of the heart, and such study is incomplete if the brain is not included.

When I looked into the books of the phrenological authors I found a singular clearness in the way they arranged and defined the mental faculties, as compared with the older authors, and was at no loss to understand their mean-

ing, and became convinced very soon that the school, in which the teacher did not take pains to instruct his pupils about the principles of mental science, was lacking in a matter of first importance in true teaching.

A youth of average intelligence who can learn the principles of arithmetic and grammar can learn much about the structure of the brain, and also the general nature of the different faculties. I think that none of my young readers have found it difficult to understand what has been said already in the course of these "Talks," and if later we shall



GENERAL JOHN NEWTON.

venture into a class of faculties, that are commonly referred to a higher order than those we have considered, I think that their part and exercise in our everyday life will not be hard to grasp.

On this occasion we take up the organ and faculty of Locality. One of the elements or things that belong to every object in nature, and which is one of the first that we notice, is its place—where it stands in relation to other things. It must be to the north or south, east or west, of something, and we

could not begin to describe it so as to give a clear idea to another's mind without stating in the outset where it was placed. The organ in the brain which has to do with the location of things is very prominently situated, reminding us of a watch-tower or light-house on a high point of land, projecting from the coast line into the sea, for it lies in the central convolutions, directly over the organs of Size and Weight, and when large is indicated by a bulging fullness of the forehead on each side of the middle line. If Eventually is large also, then the forehead in the middle shows a general fullness.

This organ was one of the earliest discoveries of Dr. Gall; he was led to

organ in the brain was settled by a very large number of observations.

People who are fond of travelling, pioneers, explorers, navigators, generally, are largely endowed with Locality. Look at the portraits of such men as Humboldt, Captain Speke, Stanley, Dr. Kane, Livingstone, Schwatka, and you will see that these men had a natural impulse to change of place. The savage who lives in the forest glade, or on the mountain, and must find his way without a path or road from place to place, shows a great development of this organ—and those sketch-books of travel and adventure that you so delight to read, Cooper's tales of the sea and of forest life, Captain Maryatt's, Bayard



THE LESSON IN GEOGRAPHY.

think about it even while a boy at school, because he often lost his way when rambling in the woods, while most of his playmates could go anywhere, and never appeared to be at a loss in finding their way. He came to the conclusion in after years that men, and animals too, possessed a mental quality or instinct that, when strong, enabled them to go in the right direction toward any point they wished to reach, and the place of the

Taylor's and other books relating to foreign lands, could not have been written by one who did not have a strong organ of Locality.

You know boys who are very fond of roaming about; I knew some who liked nothing better than to go off in the morning and spend the whole day on a "cruise," returning at night hungry and tired; they might be warned by anxious mothers that they would be lost

but laughed at the idea. I have known children with this faculty so active that they would slip out of the house whenever they could, go long distances from home, returning safely when they had become tired of rambling. Some people can remember the situation of a house they have once visited in a strange city or neighborhood; they may forget the name of the street and the number, but if they have occasion to go to the house a second time they have no trouble in finding it.

Many surprising stories of the action of this faculty in animals, birds and insects are told. Most of you know how straight a bird will fly to its home or nest. Carrier pigeons are famous for their instinct in this respect. So are bees; no matter how much the honey-bee may have wandered in hunting for sweets, when it has taken on a load it mounts up in the air, circles around a few times, and then darts off straight for its hive. This habit is taken advantage of by the honey-hunter, who watches the direction bees will take when returning to their tree-hives, and by following them discovers the place where their honey is stored.

In horses, dogs and nearly all our domestic animals Locality is strong. Pigs have shown it in a remarkable degree. I remember a case that is worth relating of a young pig that was put in a bag and carried a long distance over a round-about course, and then set free. He had never been out of the home pen, and so could not have been supposed to know anything about the country. Yet he made the journey to his natal home in double quick time, travelling in a very straight line, crossing fields and swimming one or two streams on his way.

The portrait of General Newton shows the organ of Locality large, as you at once will see. He is the well known civil engineer who has been in charge of the great work in progress so many years for the removal of the rocky reefs at what is known as Hell Gate, in the

East River, New York. You know about the great blast of last October, when more than a hundred thousand pounds of the most powerful explosives were fired in the vast labyrinth of chambers that had been tunneled in the rock. The island of solid stone was riven into thousands of fragments by that tremendous blast, and dredges are now removing them.

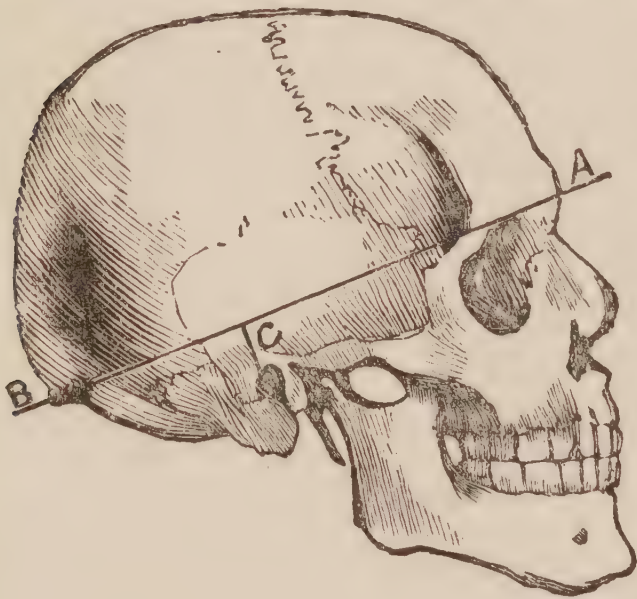
You will see that General Newton has a good allowance of the organs needed to make one a successful builder, manager and projector of mechanical works. He has done well in the undertaking to clear the East River of its old and dangerous obstructions, and before long it is expected that the largest vessels can get down from Long Island Sound to the docks of the city.

In the study of geography those boys and girls will excel who have large Locality; they will remember the situations of the seas, rivers, lakes, countries, states, cities etc, and without much hard study. They can draw maps, too, with more accuracy than other children who are small comparatively in the sense of place. Usually children are interested in the study of geography, and in the schools where the teacher has large maps and uses them, when the time for the geography recitation comes all the scholars, little and big are attentive, and follow the teacher's pointer with pleased eye as it goes over the country they are learning about. Whether or not the little fellow in the picture is the best boy in the class I am not ready to say, but shall wait to hear him recite. The lesson, if we notice the direction in which the teacher is pointing, evidently concerns our neighbors up in Canada, and we can imagine that the bright little fellows sitting at the desks are full of wonder as they are told about Labrador, Hudson's Bay, Nova Scotia, Ontario, Manitoba, Columbia, etc., and about the different tribes of Indians, the scattered settlements, the animals, and strange scenes of those far-off regions. EDITOR.

BIOMETRY.

WE are in receipt of a letter from a physician of Iowa City, Iowa, referring to an article in the February number of the *Prenological JOURNAL* on the above subject, and asking for an engraved illustration of the mode of measuring according to Dr. Powell's life-line. In Dr. Powell's book, now out of print, we find his explanation of this topic briefly given, with two wood cuts, and he gives credit to Robert Cox of Edinburg for measuring in this manner, to ascertain how deeply the middle lobes of the brain dip below the anterior and posterior lobes.

Mr. Combe in his system of Phrenology (1825) attributes this mode of measurement to Mr. Abram Cox; and



MODE OF MEASURING THE LIFE LINE.

Mr. Combe is doubtless right as to the person. Mr. Combe describes the base-line, and also gives engravings.

Dr. Powell claims to have formulated the idea that vegeto-vital power depends upon the depth of the middle lobes of the brain below the line which Cox draws. We believe that the width of the head above the ears also gives the power of vitality as well as the depth. It will be seen that nearly, if not all, narrow-headed beasts, birds and fishes have a weaker hold on life than those

which have broad heads; they are more easily killed, and yield life to comparatively slight injuries. The cat and the cat-fish have great tenacity of life; the latter living for hours when half cut in two by a spear, with but little water in the bottom of the boat to aid his existence; while the rabbit and shad, with their narrow heads, are very easily killed, the rabbit dying quickly if smitten with the ends of the fingers, while the shad may die in three minutes after being drawn from the water.

In order to make this subject clear for our correspondent and others, we give a cut representing a skull, showing the proper method of making the measurements which indicate the depth of the middle lobes of the brain as they project below the anterior and posterior lobes. A, shows the base of the anterior lobes as they lie on the super-orbital plates; B, shows the location of the occipital spine or bony point on the back head, which also indicates the base of the posterior lobes, and the separation between the cerebrum and cerebellum. It is not easy for persons not familiar with finding this point to ascertain its exact location on all heads, but in some heads it stands out three-quarters of an inch. C, shows the life-line, drawn from the base-line A, B, to the external opening of the ear, and the length of the line C shows the depth of the projection of the middle lobes below the anterior and posterior lobes. The greater the length of the life-line the greater the tenacity of life under ordinary labor and care, and especially under injury or disease. If that line be short, life is held by a feeble tenure; if the line be long, from an inch to an inch and a quarter, the vital oil will keep the lamp burning, accidents excepted, to extreme old age. For more than forty-five years we have regarded the width of the middle section of the head as being

a measure of vitality, and an indication of long life, and when Dr. Powell's life-line was promulgated, indicating the depth of the middle lobes as showing the length of life, we accepted it as an additional indication of long life. We may remark, the base lines as drawn on Powell's cuts are not drawn anatomically in the two skulls which he presents, alike, and in neither are they correctly drawn according to his own descriptions; the artist, we presume, not getting the true idea.

Our drawing corresponds anatomically to Combe's description of Cox's method. It is not a difficult thing, where this bony point can be located, to draw a tape or other line around the head, or to push a hat, which is a little larger than is required for the person, down to the brow, and then the back of it down to that bony point, and then notice the distance between the line which is drawn around the head, or the base line of the hat, to the opening of the ear. A person who gets used to it, a practical Phrenologist, for instance, can put his thumb on the occipital spine, and draw the line with his eye from the brow to the point, and see within the eighth of an inch the distance from where it crosses above to the opening of the ear. Physicians can do this without making any parade, and especially can study the broadness of the head as well as the depth of the middle lobes. This view of the case presents Combe's, Powell's, Lambert's and our ideas all at once.

The application of this mode of determining the length of life, namely by the width of the head, and the length of the life-line, as set forth in an article by Dr. Lambert, in the December number, we believe, was the first systematic and persistent effort which had been made to any considerable extent with a view to a correct and safe method of life insurance. Dr. Lambert was president of a company in New York, and all the applicants were judged and rated on the basis of these measurements. Other

companies became alarmed at this method of predicating the value of insurance, or the cost of insurance, as Dr. Lambert was ready to insure those of naturally long life for about half the premium at which he was willing to take the other classes. Of course the other companies wanted to take all the long-lived men at the high rates, or at the same rates that all paid; thus the long-lived ones had to make up the deficiencies arising from the short-lived ones, by carrying extra premiums. Of course Dr. Lambert's young company had to succumb to the combined influences of such an opposition as could be raised against it by the old and wealthy companies. But this is the only fair way of insurance. Brick houses with tin, slate, or gravel roofs, cost less for fire insurance than frame houses with shingle roofs, and why should not a man with tenacity of life indicating 80 or 90 years, being insured at the age of 30, pay less than one who belongs to a weaker stock, and who has the indications of only 50 or 55 years? It can thus be told who are fittest to survive. N. S.

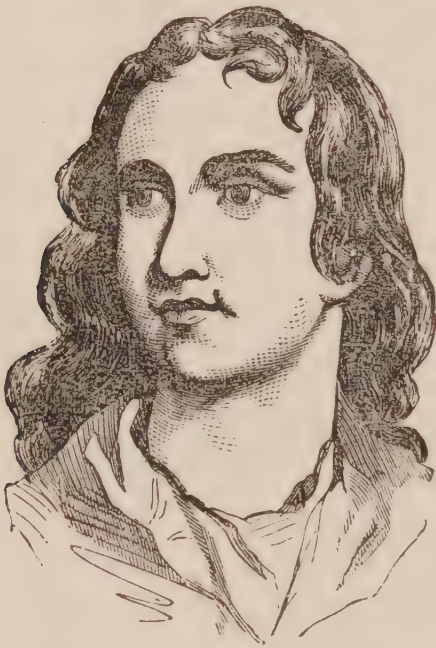


ALL WELL-BALANCED.—An observer says: The only mental weakness of which people sometimes complain is defective memory, but they will never complain about defective judgment or defective common sense. This agrees perfectly with what a German physician has lately argued in an essay, that insanity is a blessing, as the insane live in an ideal sphere. But the fools outside the asylums, which largely outnumber those in confinement, are happy also, while the sensible people have all the cares. The German physician referred to considers it an act of cruelty to restore the happy lunatics in asylums again to this world of troublesome realities, while we consider the cure of the lunatics out of the asylums an impossibility. Solomon had found this out when he said: "Though thou shouldst bray a fool in a mortar among wheat with a pestle, yet will not his foolishness depart from him."

ABOUT PICTURES AND FACES.

"When from the sacred golden driven
 Man fled before his Maker's wrath,
 An angel left her place in heaven,
 And crossed the wanderer's sunless path.
 'Twas Art, sweet Art! new radiance broke
 When her light foot flew o'er the ground,
 And thus, with seraph voice she spoke:
 'The curse a blessing shall be found!'"

WE have no Louvre or Vatican, no Dresden gallery in America. We are not an art loving, art patronizing people, perhaps, in the strictest sense of the word. Yet there is gradually growing among us a finer culture, a more thorough appreciation of ethics than has marked any preceding generation. Many of our wealthiest citizens have private collections of statuary and paint-



CHARLOTTE CORDAY.

ings that speak well for this increasing interest in art; and in almost every large city there is an Art gallery where the public, "without money and without price," can study the best works of the greatest masters. New York, Philadelphia, Chicago, Boston and Washington have each a large building devoted to art treasures—painting, statuary, ceramic ware and valuable *bric a brac*—where one can behold lovely and glorious works that in many respects are not surpassed on the other side of the Atlantic. We are not going to attempt a de-

scription of any of these buildings or collections now, our chief intent being to set before the reader a few studies that we saw during a recent visit at the Corcoran Art Gallery in Washington.

How differently the same subjects are rendered by writers, painters, and sculptors, accordingly as they sympathize with their subject, or not! I once saw a "Charlotte Corday led to execution," beautiful as a woman could be, but quite capable of wickedness. Her face was that of a real assassin, a murderess, and might have answered for a Lady Macbeth or Clytemnestra. I suspect the painter was a bitter red-Republican. In the Corcoran gallery there is a painting of "Charlotte Corday in Prison" that is very different. It represents the heroine looking through the iron bars of her prison window. Her dress is that of a Breton rustic, and a tricolor ribbon decks her cap. She rests her weary form upon her right arm. The same hand holds a pen and supports the drooping head and pale, beautiful face. Her features are of the noblest beauty; the mouth declares a resolute will, and there is a rare fascination in the quiet, mournful eyes. You know as well as if the painter had told you himself that he was an admirer of this heroic, peasant girl who braved death and dishonor for the sake of her country.

One lingers long at another picture close beside this one—"The Vestal Tuccia," by Hector Leroux. In fine harmony the artist has combined purity and excellent conception of design with cool, chaste coloring, and an admirable knowledge of *technique*. The whole interest of the picture, however, converges upon the form of the vestal virgin. There she stands, the beautiful priestess Tuccia, charged with the gravest offence which could be brought against her profession, with all the beauty which youth and the climate of her own Italy could give her, poised on the bank of

Rome's yellow river, with a sieve in hand, while distant masses of the people, a near group of vestals, and a solitary fisher-boy in the back ground, watch her in eager expectation of the issue of the miraculous test. It will be a long time before one can forget the stately grace of the elegant patrician figure clad only in its white stola, and the delicate beauty and purity of that face which might be that of a Madonna, but which has also the pride of an Empress.

A "Scene at Fontainebleau" is a picture of a bosky lane in that royal demesne. At a distance through the vista is seen the grand chateau with its towers, windows, balconies and terraces, while in the foreground is an old-fashioned young lady who may well be Agnes Sorel, or Louis Eleventh's liege queen, Charlotte of Savoy, so queenly is her mien, so regal are her robes. Her rich amber brocade is lifted with one hand and shows her white, embroidered skirt, while a symmetrical foot and ankle peep from beneath it. She has a sweet young face, yet there is fire and pride there too. For such a face knights have before now risked their lives in the tourney and on battlefields. She is attended by a noble looking hound, haughty and handsome and faithful as Llewellyns' in the old, old story.

The next notable picture is the "Talking Well." We have seen that maiden somewhere before. Is it Elaine who guarded the shield of Lancelot? Certainly she is fair enough, but that lily grace and old time dress are lacking. Nor is it Rebekah nor Maud Muller. Ah, I remember now. She is the girl who went to school with me and was my playmate in many childish games. The same dress, the same face. She stands leaning upon the pitcher that she has just filled to the brim from the fountain. Hers is a charming figure, and the arch smile gives her face a piquant beauty that accords well with her rustic garb. The sun lights up her crimson bodice; and the saucy fellow who

bends over the low wall, in slashed scarlet jacket, and jaunty cap and plumes, page of "my lord," ought to have his ears boxed.

One of the realistic, dramatic pieces of Jean Jerome hangs up high on one side of the room, where the light never touches it, a weird, powerful picture that haunts one: "Cæsar Dead." The transitoriness of human greatness was never brought out so strongly before as the artist has represented it here. There is the world's great master lying stretched alone on the pavement, his chair fallen, his robes bloodstained, the wide, marble-paved Senate-chamber dusty and deserted, the pillars sprinkled with blood, the circlet of golden leaves fallen from his brow—all accessories kept from sight save the imposing row of columns, the base of Pompey's statue, and the stony stare of horror from the Medusa in the pavement, dabbled with the bloody foot-prints of the vanished conspirators—a gloomy, awful, but perfect scene of crime and loneliness.

"O mighty Cæsar! dost thou lie so low?
Are all thy conquests, glories, triumphs,
spoils, shrunk to this little measure?"

There was a portrait of "A Lady" that I gazed upon with a devouring but vain curiosity to pierce the story of her mystery and her fate. This unknown beauty, supposed to be one of Leily's female heads, perhaps one of that fair bevy of lovely women who shone a star in the firmament of Whitehall or Hampton Court, is represented by a woman in the bloom of youth, with Juno's magnificence and Diana's grace in every outline of her person. With a sigh of baffled interest I gazed upon the fine contour of the face, the lovely bust, the open expansive brow, the dark luxuriant tresses, and the lips ripe, rich, and curved like Cupid's bow, calling upon my imaginations to supply the lack of tradition, and asking such questions as Lord Byron asks of Cecelia Metella, with as little possibility of being satisfied:

"Was she chaste and fair?"

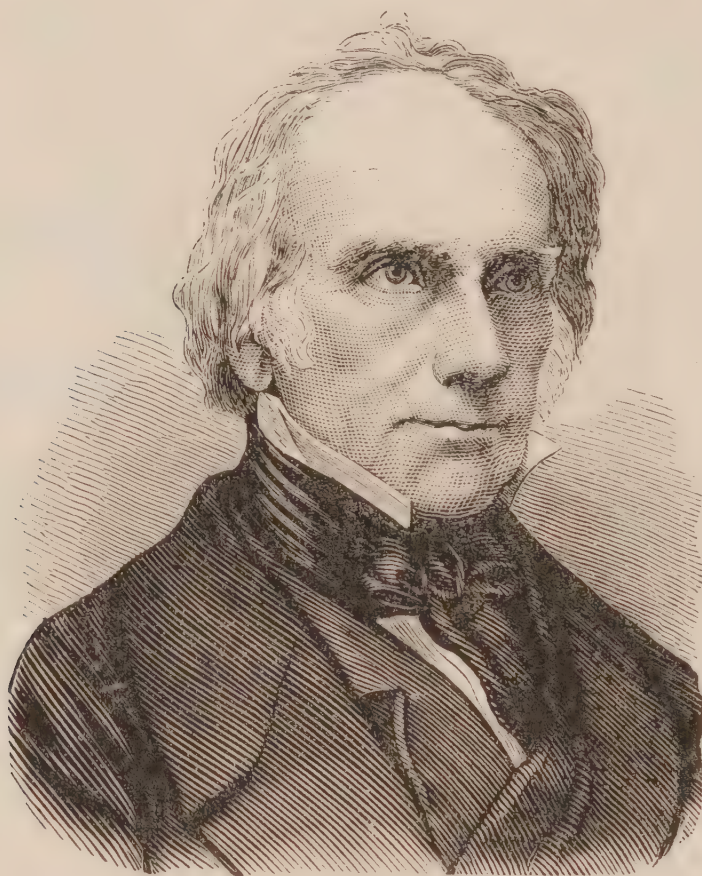
What race of chiefs and heroes did she bear?

What daughter of her beauties was the heir?

How lived, how loved, how died she?"

The gallery is rich in portraits of famous and great men, scholars, statesmen and rulers. We pause and gaze upon them long. How strangely diverse human faces are! each distinct feature being indicative of individual character. Why do some faces repel and others attract us? is it not on account of the character of the person that lies behind

mouth, clear, bright eyes, and lofty forehead, is both attractive and repellent. The portrait holds you with a strange fascination. We all remember this singular and eccentric personage, the boasting descendant of Pocahontas, the petulant, caustic and capricious man, the fiery orator, the only speaker whom Henry Clay ever feared. Well, he looks down from the wall just as he looked to his contemporaries in Congress when tall, slender and arrogant, he stalked into the Hall of Representatives booted and spurred, whip in hand and his



HENRY CLAY.

the mask of the features? Mr. Corcoran's face pleased me, It has such a hale, peaceful, benevolent look. Ex-President John Tyler's did not. It is fine and chiselled and—proud. It is handsome and intellectual, but I should not have liked him for a friend. Even Guizot's face, grand as it is, does not attract you. There is in it a suggestion of nervousness. Yet what a noble man he was! He was one who helped the world,

The small, thin face of John Randolph of Roanoke, with his mobile

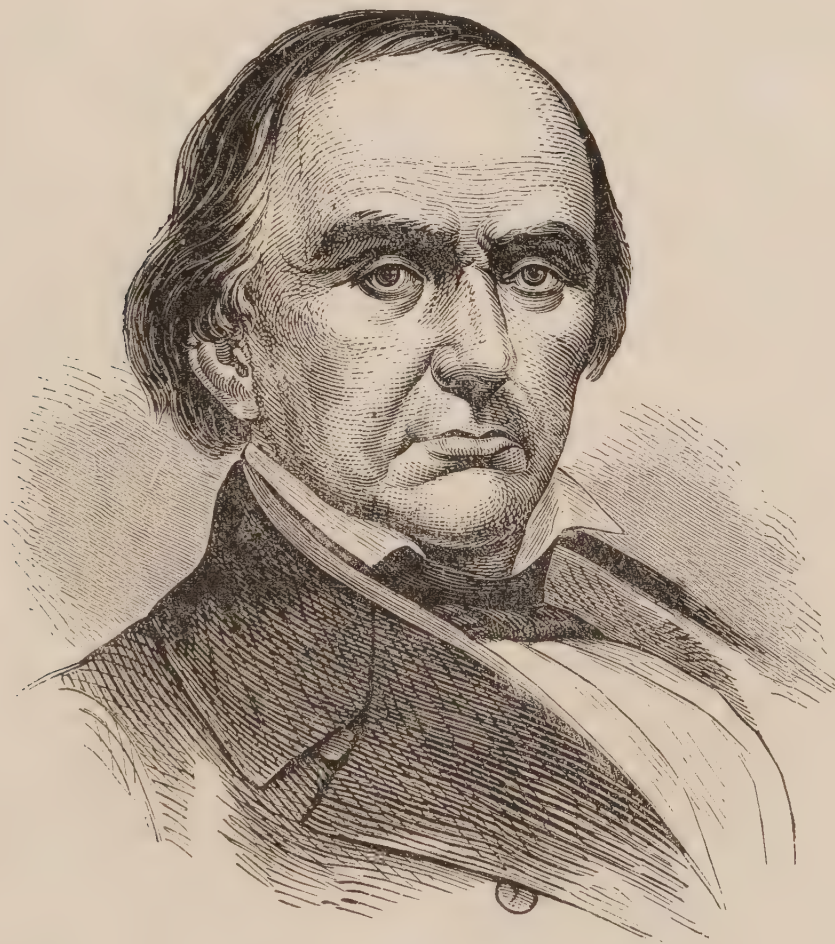
hounds behind him, to tilt with Clay and Webster. You can imagine him pointing his long, skinny fingers at his enemy and hurling his invective, sarcasm and syllogism against those who opposed him in debate. You do not observe any of that youthful look which distinguished him at the time he was first sworn in, and he was asked by the clerk if he was of legal age, when he retorted in his characteristic manner, "Go ask my constituents," but the absence of beard, his bright eyes, his hectic

cheeks make him look younger than he was.

His great and life-long enemy, Henry Clay, with whom he fought a duel while in the Senate, looks down very calmly from the same wall in brotherly proximity, as though the two had never stood facing each other in mortal combat. The face of Clay is rugged with power. It is a stronger and a finer face than Randolph's, though not a more intellectual one. His forehead is no higher, but it is broader. There was a massiveness about Clay which Randolph

of bearing and courtliness of address. These were Aaron Burr and Andrew Jackson.

It rests one to turn from Randolph's portrait to that of Clay. You can almost see the fire in Randolph's eyes, and hear the withering invective or cruel irony issuing from the thin, nervous lips. But Clay's face is serene and calm, and though he could be passionate enough, he always strove to convince rather than to annoy or irritate. Strong common sense seems written all over the face of the "mill boy



DANIEL WEBSTER.

lacked. Both were natural orators, but while Randolph was rapid, fiery, caustic and vehement, Clay was smooth, pliable, logical and convincing. More flowery oratory never flowed from the lips of any man than that of Henry Clay. Randolph was irascible, abrupt and arbitrary, Clay was always the polished gentleman, and perhaps only two other men of his time equalled him in dignity

of the slashes," and Athenian culture is strangely commingled with American shrewdness and penetration. There was not so much difference in the moral qualities of the the men; both could gamble, bet at horseracing, and fight duels, but I fancy Clay would have been the better neighbor, the more agreeable friend.

We linger before two other portraits

and study them well. They belong to two men who were distinguished personages in their generations, their very names carried prestige and influence, and they are honored to day in our val-halle of heroes—Calhoun and Webster. For forty years these three, Clay, Webster and Calhoun, ruled the minds and hearts of their countrymen with absolute sovereignty. They were the three noblest citizens of the Republic, three great uncrowned kings. And there are their portraits speaking from the walls. Webster's grand massive head, and dark swarthy countenance with the burning eyes and Homeric forehead, is unmatched in power, but there are elements of weakness in it. There is too much vanity, too much voluptuousness, too much alimentiveness. Such a man could be great, but he could not always be good without constant fighting with the flesh and the devil. And Webster sometimes yielded, too often, if we accept the statements of those who knew him best. Beside his the face of Calhoun looks like that of a saint.

John C. Calhoun was the purest of all our statesmen, purest in deed and in principle; but I must confess I never understood the man till I saw his portrait in the Art gallery. That massive Roman face, with the clear-cut noble features, the deep, sunken eyes, iron countenance and compressed lips, tell what he was. It was easy to read why he was never President of the United States. His earnest and unconquerable independence of character left him without a national party; his incorruptible purity and integrity left him without intrigue or policy; and the naturally metaphysical bent of his genius swayed mind, not the masses. He could electrify the souls of the few, but he could not carry the hearts of the multitude by storm. Clay could do that, but Calhoun never.

Clay was our Demosthenes, Webster our Cicero, Calhoun had the severity of Cato, and the grand action of Phocian. Clay could mould the people to

his will, Webster could magnetize a Senate, but let ten men of solid attainments be picked out for judge and jury, and nine of the ten would have yielded to the iron logic of Calhoun. As an orator his chief characteristics were clearness of analysis, simplicity, appropriateness and power of expression, and a subdued and lofty earnestness. He very rarely indulged in tropes and figures, and seldom left any doubt as to his meaning. In elevation and nobility of character he resembles Pericles more than any other man in American history.

As an orator, pure and simple, Clay of the great triumvirate, perhaps excelled. He depended more upon his voice, his gestures, his appeals to the emotions, than upon coherency or faculty of statement; declamation was his forte. Webster's oratory was impassioned but less declamatory; breadth and richness of illustration was his great point. The force of Calhoun's oratory depended on clear statement, close reasoning and keen retort. Although rhetorically brilliant his speeches read better than when he uttered them. Webster did some fine writing; his literary remains are models of noble English, but to have heard them, to have listened to those glowing sentences as they thundered from his lips, that, that was the experience of a life time.

No three men as great, as marked in genius, as commanding in their influence, have lived since their time. Sumner, Seward and Chase were in a degree smaller men, at least, they lacked the inherent genius to be what their predecessors were. Of the three former Clay was undoubtedly the greatest genius, that is, nature made him more than the others. What he was he would have been in any other time and place; he would always have been the orator. Webster had the most massive brain, he was Jove always, whether the others were Mercury or Apollo. But as a man, a citizen, a husband and father, John C. Calhoun was much the noblest

Roman of them all. As Webster said of him, "he had the basis, the indisputable basis of all high character, unspotted integrity and honor unimpeached." Eloquence, knowledge, goodness ; and the last is the greatest of them all ; so while I bow to Clay, and take off my hat to Webster, I shall kneel to Calhoun, the spotless, the simple, the profound. FRED. MYRON COLBY.

INDICATIONS OF CHARACTER IN HANDWRITING.—NO. 7.

THE capital letter "G" shows originality, or the reverse, in its upper curves, according to the simple or exaggerated lines they may possess, and imagination, or the reverse, in its lower part.

In Fig. 1 we have the initial "G" from the signature of John G. Saxe, the American humorist. Originality is shown in the peculiar form of the letter, —tenderness in its sloping curve, while the firm downstroke with its slight attempt to form an ascendant line denotes nervous energy and tenacity of purpose.

2. The initial "G" in the autograph of Gerald Massy, the poet. Originality and poetic grace, vivid imagination and generosity are all shown in the large and graceful upper curves. The lower part of the letter reveals ardor and energy in its rapid and easy upstroke. A slight indication of pretension is revealed in the disproportion existing between the upper and lower parts of the letter—but this indication is counterbalanced by the harmony of the rest of the signature, and the fact that this large upper curve is written somewhat below the other letters.

3. The late President Grant's name. The utmost tenacity of purpose in the

Grant was noted in all his military movements, is clearly indicated in the unusual form of the upper part of the letter, while the lower part reveals that he was one of the most matter of fact and practical men. The "hugging" down of the upper part of the letter upon the lower—unless redeemed by the tenderness so forcibly revealed in the sloping lines—would have indicated a character born to rule, and almost despotic in its will power. Great energy in the rapid utterance of the letters, and dogged determination in their angularity are also very evident. The backward sweep of the pen, covering the whole signature with a wild flourish, indicates a feeling of self-gratification, and recognition of one's highest ambitions fully realized.

4. The capital letter "H," is one which leads itself more than any other to exhibitions of the natural aptitudes of the writer for artistic enjoyment. Of this quality Miss Baughan says:—"We do not, however, mean to say, when we point out a certain form of letter as indicative of poetic feeling in the writer, that from it we glean that he has actually produced poetry, but merely that the perception of poetry, that artistic feeling, is here. A person may never have written a line of poetry, never handled a pencil, never composed a bar of music, and yet possess, and that to a high degree, artistic feeling, which, if combined with a certain ardor necessary to form creative power, would have forced itself into


general indications of this angular signature. The originality, for which General the outward expression of one or other of the arts. We have noticed that the

artistic formation of any capital letter, in combination with ardor and sensitiveness, indicates success in music, either as a composer or an executive, while the same form of letters with other signs in the writing, announces observation (which is perception of form), as well as ardor and imagination; the artistic feeling will find its expression rather in painting, or in the sister arts of sculpture and architecture, than in either music or verse. The artistic form of the letter "H," (as of all other letters only this lends itself, as we have said, more particularly to this type), is that which most nearly approaches the simplicity and clearness of the printed form without losing the grace and flow of the written letter."

I also give—as I have often done before, and shall again—the following delineation *verbatim* from one of Miss Baughan's articles. In Fig. 4, is the letter "H" taken from the address of a letter from Gerald Massey, the poet, to a lady who had written to ask his permission to set one of his exquisitely graceful lyrics to music. The address at the head of this letter is, 12 Henderson-row, Edinburgh, and it is the letter "H" in the word Henderson of which we give a fac-simile. Here we have the artistic form of the letters in its flowing and harmonious lines, which, notwithstanding their grace, still preserve the clearness and simplicity of outline of the printed letter, while the imagination of the writer shows itself in the rather eccentric curve of the terminating line. Of course, one such letter, even if it were constantly recurrent, would not determine one to believe the writer a person of strong imagination; the same types must appear in other capitals, or in the finals of the words. In this short courteous note of Gerald Massey's there are still more conspicuous indication of the imaginative faculty in the other capital letter. The letter terminates thus:—"If any alterations are necessary to make the verses singable I would be glad


to make them, but most of my songs have not been written with music in mind." To us the last phrase is almost superfluous information—a writing so strongly indicative of imagination, (which is one of the highest intellectual qualities) would lead us to divine that the writer's artistic perceptions would find voice in poetry—the most intellectual of all the arts—rather than in music."

5. From the signature of our beloved Longfellow. Grace, simplicity, refinement and power are all clearly shown in this letter, so clear and positive, and yet

 so graceful in its outline. Wonderful poetic and artistic faculty are manifested in the sweet curves

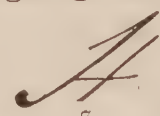
5. of this simple letter, which fulfils the conditions before spoken of as indicative of artistic perceptions.

6. The "H" of J. C. Holland, author of "Kathrina," "Bitter Sweet," etc. This letter contains many of the same qualities possessed by that of Longfellow's. There is not the same lucid-

 ity of ideas, nor the breadth of character, here revealed as are found in the writing of the Cambridge poet, but there is a greater

supply of tenderness and sympathy.

How different from either of the foregoing, and yet how beautiful, is Fig. 7,

 from a letter of Lord Shaftesbury. Here the chief indications are artistic grace, refinement and tender susceptibility, combined

with great ardor.

As the letter "I" is very similar to the first stroke of the letter "H" it is almost entirely subject to the same laws of interpretation. If the letter is simple and graceful it denotes æsthetic tendencies, but when the head is made with flourishes and exaggeration it reveals eccentricities and conceit. And as "J" is so often written in the same manner as "I" there is but little difference in the laws of interpretation of the indications of both. If the termination of "J" is made below the line, the indications are

the same as in the lower part of the capital "G."

8. A capital "J" from a letter of the deceased Chas. J. Folger, late Treasurer of the United States. Intense determination and tenacity of purpose shown in the angularity of the letter. Very little imagination. A most positive and immoveable character. Economy revealed in the small and cramped form of the letter, but refinement, grace and lucidity of ideas in its simplicity and clearness. The character indicated throughout the whole of this writing is that of an old style English gentleman of a century ago, dogmatic and firm, but the very soul of honor. A model of courtesy and politeness, but a man not to be crossed or thwarted in his purposes.

9. From a hurried and intimate letter of the Hon. Mrs. Leigh (Lord Byron's Sister), to a friend on a very private matter. Here we have extreme grace denoting very pronounced artistic feeling; the letter, too, is sloping, indicating sensitiveness. The other capital letters in this short note show much ardor and imagination, amounting almost to eccentricity.

10. Richard Cobden, the politician and Corn Law agitator of England. From a letter written in 1862, to a friend, excusing himself from attendance at a meeting at which his presence had been requested. Strong will in the sharp, decided downstroke—no grace—"no artistic feeling of any sort," says Miss Baughan.

To this I must demur for in its bold simplicity there is a native dignity which to my mind betokens considerable artistic feeling. There is a great deal of movement in the rest of the writing, and force of will indicated in various ways.

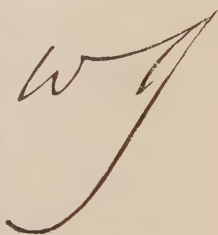
11. From an addressed envelope written by one of the leading antiquaries of England. Great imagination and eccentricity in the peculiar and sweeping form of the letter. There is little or no tenderness in the character of one

who habitually writes with the straight up and downstrokes of this letter, and scarcely any poetic or artistic qualities are perceptible, although the sweeping curve at the bottom is suggestive of some little poetic and kindly feeling. (The wood engraving has been mislaid.)

12. From the writing of *L'Inspecteur Principal* of music in the schools of Paris. A most peculiar and singularly formed letter. Strong will and nervous energy are shown in the sweeping downstroke with its thick and abrupt termination. The remainder of the writing, also, possessing this quality of abrupt terminal, the indications are that *L'Inspecteur* was appointed to his office as a rigid economist, and one who would see his orders obeyed to the very letter.

13. Here is a different style of "J" and yet in some respects similar to the two preceding examples. This is from the pen of Mr. Spofford, the Librarian of Congress. In this letter there is a calm, quiet, energy displayed, with considerable poetic grace and artistic refinement in the flowing terminal curve. Originality and an easy flowing of ideas are shown in the connecting stroke between the "o" and "f," and firmness of will in the angular head of the letter.

14. Here is the letter "J" of Marshal Pelissier, the French general, which is a combination of grace, cultivation and force; grace in the harmonious curves, cultivation in its finish and rather *recherche* style, and force in the firm downstroke. As a general rule long and flying up and downstrokes are always a sign of originality, so too, of eccentricity, and of a quick, ardent temperament more especially when these upstrokes and downstrokes do not slope regularly with the rest of the writing. When up-



strokes and downstrokes are long, and take regular, sloping and harmonious curves, we have a sign of sensitiveness rather than ardor.

The letter "K" is subject to almost the same rules as "B" and "H." The sweep of the upper right-hand part of the letter denotes imaginative ardor or the contrary.

15. Here is a specimen from the handwriting of Frances Scott Key, the author of "Star Spangled Banner." In this clear, bold outline strong will is marked in the angularity of the letter, and great ardor in the thick and sweeping stroke referred to.



15.

16. Is from one of the autographs of John Keats. In this letter the beautiful simplicity of the mind of this "poet of poets" is shown. The letter reveals grace, refinement, culture and a steady, evenly balanced, though poetic tempera-



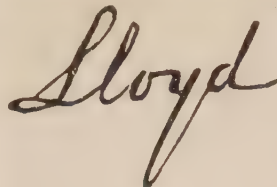
16.

ment. There are originality and ardor shown in the rapid and rounded curve of the upper part of the letter, and steady flow of ideas in the easy manner joining the letter to the following one.

Of the capital letter "L" Miss Baughan remarks:—"The letter "L" is one which we have noticed occurs very often in a handwriting on any subject, and for this reason requires careful study. It lends itself especially to flourishing lines, and therefore is very treacherous to pretentious and egotistical people, as it betrays their folly more readily than some of the other letters."

17. From the signature of Wm. Lloyd Garrison. In this writing grace and ease are revealed, but evidently of a somewhat studied character. The stern uprightness of the letters and the clear-

ness with which they are written show lucidity and care of expression, together with the calmness of a self-reliant mind conscious of its own integrity. Abraham Lincoln's writing contains similar indications.



17.

18. In Leigh Hunt's signature there is a calm dignity, with somewhat of a kindly self-assertion in the large loop at the base of the letter. Sequence of ideas in the easy manner of joining one letter to another, and a variableness of feeling in the "rising and falling" of the letters, for, instead of their all being written upon a line, the "e" is lower than the "L" The "i" then rises to its proper place. Where this irregularity



18.

often occurs—as it does in this writing—we have generally a character subject to alternate "fits" of "sunshine and shadow," and such, from his works, I should assume was somewhat of Leigh Hunt's temperament. There is but little tenderness revealed in this character.

19. The "L" in the signature of Lord Lucan shows originality, enthusiasm, and ardor, with a strong and determined will. The originality shows itself in the peculiar formation of the letter, which is as much like a capital "S" as the letter it is intended to represent; ardor is



19.

shown in the dash and movement of it, and in its angular top, while the strong will asserts itself in the heavy square line which terminates the letter. A fine, military signature, and the little line un-

der the rest of the letters indicates the caution in which, without this, this signature would be deficient. As has already been observed, the letter "M" occurs often, and therefore reveals much to the graphiologist. "N" well repays the most thorough and careful study.

20. Is from an autographic letter of the mother-superior of one of the English Convents. There are refinement, æsthetic taste and ardor shown in the graceful sweep of the upstroke, but the will is neither firm nor reliable. The imaginative ideal expressed in the disproportionately high first point is never reached, and the life is not a contented one, for it expects and hopes for much more than it has attained.

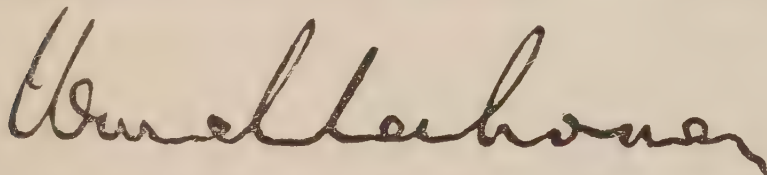
The remainder of the writing betokens a woman of great natural power, but



20.

whenever this great discrepancy in the first and second points of the "M" exists, we have a sure sign of a character that has failed,—and failed inevitably,—to attain its ideal.

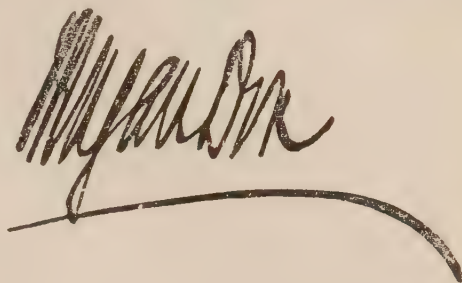
21. In the signature of Wm. Mahone, Senator for Virginia, we have a most striking letter. Sequence of ideas and originality are strongly expressed by



21.

the easy, though unusual manner of joining the small "m" with the Capital "M." Liberality and generosity to a fault are revealed by the wide space which exists between each letter,—strength of will and determination of purpose in a marked degree in the angular and pointed form of every letter. Imagination and ardor in the boldly ascendant capitals; and the practical equality of the points of the "M" say;—"You have here a character whose ideal has been attained." How different is 22, the "M" of the Rev. Morgan Dix, the rector of Trinity Church, New York,

and yet in this latter particular its indication is the same as the preceeding example with the addition that at times



22.

the ideal is *more* than attained. In other words Dr. Dix sometimes, in his intellectual efforts, is a surprise to himself. There is not much breadth of character or tenderness expressed in this writing, but much refinement and grace, and also some poetic ardor which will materially influence all that the Rector does. An easy flow of ideas is revealed in the ready utterance of the pen in joining the letters together.

23. The word "My" from one of John G. Whittier's poems. Here the form of the Capital is used in which there are three



23.

points instead of but two. Whenever this form is used, invariably the second and third points decline a little from the first. In this case the decline is perfectly harmonious. Were the last two points only the size of the ordinary writing we have the sign of

an unattained ideal. This is a most graceful and expressive "M." The preliminary curve indicates, together with the wide sweeping "y," poetic ardor and vivid imagination. The simplicity of the letter points out a high order of refinement and intelligence free from the slightest trace of



24.

pretension,—although there is some little of this latter quality revealed in the main body of the writing.

24. "We have," says Miss Baughan,

"chosen as our last specimen a letter 'M' in a short note from a very insignificant person, because it is an example of extreme pretension and want of judgment. The first part of the letter is simple enough and the angularity of the second point shows a certain acuteness of observation, which is, however, con-

siderably marred by the termination of the letter in its extravagant flourish,—larger than the letter itself—which shows a pretentiousness sufficient of itself—unless counterbalanced by redeeming qualities,—to lead astray a judgment which might otherwise be good."

REV. GEORGE W. JAMES, F.R.A.S.

THE EXTERNAL HUMAN EAR AS AN INDEX OF CHARACTER.

SOMEWHERE in Mr. O. S. Fowler's big book, "Human Science," he says that the elements of an organization should be in harmonious development. Since this may be expected, one function may be deemed an index to all. So the ear-cartilages, in fact, placed for what purposes we do not know on the sides of the head, may indicate some qualities of the man, as well as the hand, the face, the arm, the stature, the build, the exterior surface, the hair, the clothing, the voice.

I am of the opinion, as I have already distinctly stated in a previous article published in the JOURNAL, that we should seek to gain every possible knowledge of the man we wish to know; whether it be historical, scientific, or anatomical. Nothing that we can know should be despised in making up our knowledge of him.

Whether this chapter shall add anything new must depend upon my skill in stating it; for I am assured that the outward ear adds to my own diagnosis of the man very materially. And to be as particular as possible I will say that the size indicates undoubtedly, as has always been held, the generous, mean, conservative, delicate, man according as each of these terms apply to the ear. What the thickness signifies, I shall not of my own knowledge declare; that is apparent from analogy; and means if anything a general thickness of cartilage, with perhaps a breadth of muscular development and consequently slowness of apprehension and action, since most

heavy people move, think, and act deliberately.

It is however the contour of the ear, and the relation of its parts, which repays observation best and most readily. Let us think of the ear as consisting of an upper and a lower portion, divided horizontally by a line across the ear at the middle of the exterior auricular orifice. The region above this line, let us assume, represents the moral and spiritual and intellectual elements of character, and below it the physical, sensual and baser elements. What is the proportion of these parts? If the upper predominate in breadth and general proportions above the lower and greatly predominates, does it indicate a decided intellectual and moral nature?—one ruled by what is just and right? and on the contrary, if the lower ear be large, thick, heavily proportioned, does this fact indicate the man of base passions, ruled by inclination, emotion, lust, appetite, greed, and brutality?

Much of my observation is of course as yet tentative and uncertain. But of the contour I may freely say that I am convinced by every one of many keen observations that the man whose upper ear projects and bends forward is invariably one who is either very tractable, or desirous of learning, or very intelligent. Such would be the qualities indicated from his habit of attending or giving attention to what passes around him. He is quick to learn, easy to train, provided his hand is delicate and facile enough to do

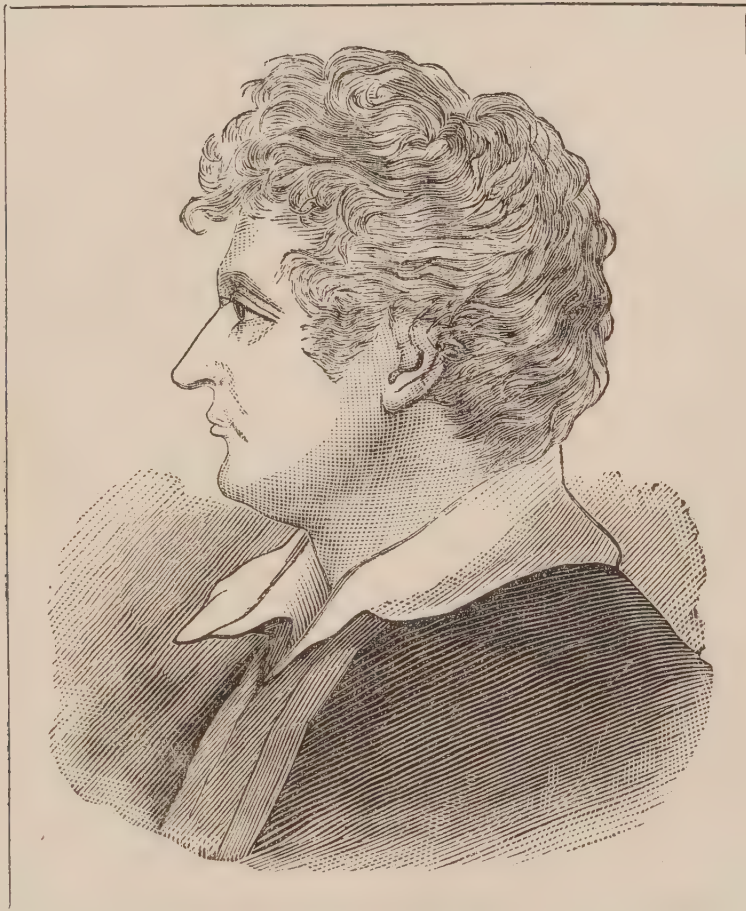
what is required of him on occasion.

On the other hand, the man whose ear buttons back to his head—is close to the skull in its tip and posterior margin, evinces opposite qualities. He is intractable, inattentive, heedless; he is accustomed to hear, it is true, but not to mind what he hears; to allow people's cruel, witty, wise, and trenchant sayings to go by unobserved. Nevertheless, such a man may be handled, by reason of his being unobservant. A good many excellent public servants have such ears,

and must habitually be unobservant of many things, since so many uncomfortable affairs encompass and engage them that they would become quite miserable were they to heed them all.

The pointed ear is the ear of the turbulent, intractable man; who breaks out occasionally in an original vein, and who has his days and hours of uneasiness. The ear bounded in its superior margin by a curved line, is that of the quiet, easy, amiable man.

HENRY CLARK.



THE POET OF SWEDEN—BISHOP TEGNER.

ONE cold November day at the old parsonage of Byrheried in the iron-veined Wermland, Sweden, a little more than a hundred years ago, a beautiful boy first opened his bright eyes, and the same day, was baptized Esaias Tegnér. Little did the father think as he made the record in the old family Bible, that the boy would live to write that name in immortal runes as the first of all Sweden's tuneful bards. As the

mother laid her hand tenderly on the child's soft curls, she never dreamed that for that young fair head ecclesiastical, civic and poetic honors would one day weave their triple crown. Our own Longfellow has made the name of Tegnér hallowed and beautiful to us through his rendering of the Nattvardsbarnen—"Children of the Lord's Supper." The boy Esaias had a warm heart, a winning way and a lovely face; he

astonished all around him by his early love of books and nature. Often the mother would find him seated on a stone or on a ladder with a book in his hand so absorbed that during harvest time, when set to watch a field gate, he one day forgot the cattle and let them all walk through into the yet unmown meadow. In after years he often said he could never remember the time when he did not express his thoughts in verse. When a child he sang of every event at all remarkable in his quiet life. The birth of a flower, the death of a bird would kindle some poetic strain. Very carefully his mother cherished these early verses. One of his first effusions was an elegy on a departed goose; this, she kept for years and loved to read over to herself and to others. She was a warm hearted and gifted woman, often weaving her own thoughts into tender, tuneful verse. She lived ninety years, long enough to see her own budding thoughts burst forth from the sublime soul of her illustrious son in full flowered song.

Tegnér's father was a peasant's son, whose native talent and thirst for learning had surmounted every obstacle, and who had graduated at Lund, and became an honored and eloquent preacher. He was a genial companion, and a great lover of nature. He bore the name Tegnér, from his native village Tegnäry.

This genial, affectionate father was not only a judicious guide and faithful instructor to the young Esaias, but he was his daily companion, entering with all his heart into the boy's pleasures, and encouraging his young ambition, but for only nine short years this loving companionship lasted. The father was suddenly called away from earth, and the broken hearted mother left with little means to support and educate her sons and daughters. Esaias was her joy and comfort, while her elder sons were at the University. Young as he was he kept her accounts, and learned Latin

and French by himself. The mother took great pride in her boy's talents. Unable to do all she wished for him when he was ten years old she gratefully accepted the kind offer of an old friend of her husband to take the boy and bring him up as his own son, and make him familiar with the business of his office. This gentleman, Mr. Branting, was a royal officer, having a bailiwick, and he took the boy often with him on his business journeys through a picturesque province whose many winding lakes reflected the beauty of the woods and mountains. Everything beautiful in nature kindled the youth's poetical enthusiasm. Returning home one starry night with his foster father from Carlstadt, as the good man talked of the wisdom of God displayed in the starry heavens, he was astonished to hear the boy's remarks about the laws and movements of the heavenly bodies, and found that he had read carefully through Bastholm's "Philosophy for the Unlearned," and talked fluently of themes of which he himself was almost ignorant.

Esaias had performed his duties so faithfully he had made himself very dear to his foster father, at the same time he had improved every leisure moment in reading, and Mr. Branting wished to keep the noble, brilliant youth always with him—but he reproached himself for confining the boy to a business life when his tastes and talents might, if encouraged, fit him for a higher sphere. Some days after the evening ride Mr. Branting told Tegnér he should be a student, and he would help him all he could to get an education, much as he grieved to part with him. Esaias had found at Mr. Branting's a folio of the seventeenth century and a number of Icelandic sagas with Swedish translations. His first long poem, "Atle," was founded upon one of these, and his "Trithyof's Saga," his greatest poem, was suggested by one—a germ which lay hidden long in his child-

ish breast to burst forth in later years.

Mr. Branting wrote to a friend of his at Wermland, asking to have Esaias share with the gentleman's sons the instructions of their tutor. Much to the boy's delight this tutor was Lars Gustaf, his oldest brother. After nine months instruction Tegnér was able to study by himself, making himself familiar with the Latin poets and advancing rapidly in French. At sixteen he commenced to earn means for his further education; he became the tutor of the children of an iron-master and councilor of mines, Mr. Myrhman, who was himself versed in many languages, and his library contained several Greek classics. Here he became familiar with Xenophon and Lucian and Homer and Horace, and here he found McPherson's translation of Ossian into English. This so interested him that he learned the English language without help.

Tegnér enjoyed very much his home-life at the Myrhmans. The place was surrounded with the wildest and most picturesque scenery. When study was over he loved to wander through the fir forests, and walk on the yellow leaves, and gather the blue and red cones, and all through life it was his delight to go out from the city gates to the birds and the flowers of the "wild woodland landscape beyond," and here and there all through his songs we find a rose budding, a star beaming or a bird singing in the heart of his thought. Shy, rustic and reticent as he was, avoiding society, and joining little in the amusements of youth, he became much attached to Anna Myrhman, the iron-master's lovely daughter, and when he had gained education and position he came back to ask her to share his home as his best friend for life. When he first left her father's house to go to the university of Lund she cherished most tenderly in her heart the memory of the young student. Every change in Tegnér's life so far had been fortunate, and his examination at Lund was so

perfect that he was soon appointed librarian and teacher of æsthetics at the university, and after his graduation he was chosen Professor of Greek, and at the same time was ordained to the pastoral care of the parish of Stafle. As he entered the ecclesiastical order he wrote his "Prestvigningen," a poem in the original beaming with beauty; it is the consecration to the priesthood or the ordination. We wish we could give all the spirit of the original.

PRESTVIGNINGEN.

The solemn band is nearing
The sacred altar stair,
And white-robed peace unfearing
Has left her mantle there.
The hands are reverent folded,
The prayer ascending free
As tender child beloved
Up to a father's knee.

I hear the word refreshing,
The heavenly message sound,
And breathe a balmy blessing
On every heart around.
As summer showers renewing
The burning, barren plain,
On Sharon's roses drooping
Descends the heavenly rain.

This holy consecration
My life hath set apart;
The spirit's revelation
With glory thrills my heart.
Farewell ye fading pleasures,
All earth's alluring band,
For heaven's uncounted treasures
Are glowing in my hand.

Beyond the cloudy pinion
A golden world so bright,
The mighty King's dominion,
Is bursting on my sight.
I see the blessed beckoning
Their blessedness to share,
And through the cloud-vail breaking
The angels bending there.

How Heaven's cool breath is slaking
All earth's unresting fires,
To purest rapture waking
My heart's untold desires.
I hear the harpers crowning
Our glorious King above,
Through Eden's palms resounding
The Great Atoner's love.

I hear the angels quiring
 A song no wisdom knows,
 That faith alone inspiring
 With burning fervor glows.
 What sweetest joy supernal
 Our sorrows hush to rest,
 When clear the Lyre Eternal,
 Is sounding in the breast!

How blest the pilgrim's path is
 Through all the desert drear,
 Whose heart with song rejoices
 And faith unfailing clear!
 His steps like summer breezes
 O'er fiery trials go,
 For wings of loving angels
 May fan the pilgrim's brow.

Thou Priest of truth Eternal,
 Heaven's messenger awake;
 Their homeward path immortal,
 Help every wanderer take!
 With tenderest tones entreating,
 Yet clear as thunder rolls,
 Heaven's endless bliss revealing
 To earth's imprisoned souls.

Your hallelujahs sounding
 O'er every sea and strand,
 Far as the azure bounding
 The evening's starry rand.
 To thee, an erring mortal,
 This highest bliss unfolds,
 To lead to Heaven's bright portal
 Earth's dark, despairing souls.

Now glory! glory! glory!
 With all the angels sing,
 To our all Great, all Holy,
 Eternal, heavenly King.
 Far as the beaming azure
 Arches the starry round,
 Forever and forever
 Let hallelujahs sound.

At the age of twenty-four he married Anna Myrman, his early and only love, and from the many tender and beautiful lines addressed to his wife and children, that we find all through his writings, we catch charming glimpses of a noble, loving heart, and of a happy harmonious home. Romance and poetry had wreathed their charms around the old town of Lund. There was a library of thirty thousand volumes, and there was a cathedral seven centuries old. Each departing century had left its re-

storing trace upon the quaint, irregular towers; and half a mile from the town was a hill where once Scandinavia's kings were crowned. Here, too, were valuable museums and rare, historical mineral collections. Here a century before the renowned Puffendorf was professor of the law of nature and of nations. Here all of Tegnér's rare gifts seemed to ripen into bloom. He often studied twenty hours out of the twenty-four, thus sleeping as little as possible. In 1802, in his twentieth year, he received the prize of the literary society of Guttenberg for his pathetic and eloquent elegy on the death of his beloved brother Lars Gustaf. In his twenty-sixth year his wonderful War-song woke grander and more beautiful tones than had ever been heard from the Swedish lyre. He was now everywhere acknowledged as Sweden's first poet. Delighted crowds attended his University lectures. His patriotic poem "Svea" attracted universal attention, and won for its author the prize of the Swedish Academy. This was followed at intervals by a number of lyrical pieces. Nine years after his "Children of the Lord's Supper" appeared, and the next year he wrote the poem "Axel," the story of a maiden who follows her lover to the war in male attire, and dying in combat drives him to distraction. The thought and style are beautiful, and many a Swedish maiden learns it all by heart, and never forgets it. Three years after Tegnér was appointed by the King, Bishop of Wexio, and most faithfully and conscientiously thereafter he performed its sacred duties, building in his diocese during his bishopric thirty-one new churches. His speeches on education, literature and finance, as well as his eloquent sermons have a great reputation in Sweden and Norway, and some of them have been translated and much read in foreign tongues.

Hardly had he taken the bishop's chair when his "Trithyof's Saga" appeared and crowned his head with new laurels.

It is a poem of twenty-four cantos, some short as ballads, some in blank verse, and others in hexameters set to music and sung throughout the country, and has been translated into many languages, even Russian, Polish and modern Greek. England has at least eighteen different translations; in Norwegian and Danish and Icelandic there are most excellent versions. Among American authors Longfellow and Bayard Taylor have given a very faithful rendering of the Saga, and Mr. and Mrs. Thomas Holcomb have rendered every canto in the same metre of the Swedish original. Longfellow says, "the 'Trithyof's Saga' is the noblest poetical contribution which Sweden has yet made to the literary history of the world." Bayard Taylor says, "no poetical work of modern times, stands forth so prominently and peculiarly a representative of the literature of a race and language as the 'Trithyof's Saga' of Tegnér." Tegnér says he has changed the metre in accordance with every separate song. With marvelous skill he passes from canto to canto, from pentameter iambic to Aristophanic anapæst, from trochaic tetrameter to tragic senarius, and through all the Saga glows with romantic lore and faith, while the "cold fresh north wind blows through it all," side by side with December snows, full-flowered and sweet, May roses bloom. The story is a young northern warrior, Trithyof, loves Ingeborg, the sister of two young kings. Denied her hand by her brothers, while showing indignation at their scornful treatment he accidentally burns the sacred grove of Baldur, the god of innocence, piety and light. He leaves the country on a war-like expedition, and returns to find his beloved married to an old king who generously puts an end to his life when he finds himself in the way of the lovers' happiness. The young warrior gains the lady's hand after fully expiating the sacrilege to Baldur, of which he had been guilty. This is the plot; the thoughts are chaste,

noble and beautiful. London. Paris and Frankfort have given us some of its best versions. Tegnér has sung of stars and suns, birds and flowers, of the cross and crown, of faith and resignation, of the grave and resurrection,—but love, eternal love, is the deep undertone of all. We give here the closing verses of the first canto of his Trithyof's Saga.

TRITHYOF AND INGEBORG.

When day stands on his arch so fair,
The world's king with his golden hair,
To wake the sleep of earth and men,
Each thinks but of the other then.

When night stands on her arch so fair,
Earth's mother with her dusky hair,
And mild stars walk o'er slumbering men,
Each dreams but of the other then.

Thou earth, each spring adorned so fair,
With flowery gems in thy green hair,
Give me each rarest, fairest gem
To wear in Trithyof's diadem.

Thou sea, in whose dark hall so bright
A thousand pearls are gleaming white,
The fairest pearls thy caverns deck
Give me for Ingeborg's snowy neck.

Thou crown of Odin's royal throne,
Eye of the world, thou golden sun,
Wert thou but mine thy shining field
Should be my Trithyof's dazzling shield.

All Father's lamp, thou silver moon,
Soft beaming down the blue aboon,
Wert thou but mine, thy crescent fair
Should crown my Ingeborg's shining hair.

Then Hilding spoke, "My foster son,
Thy mind from this wild love-play turn,
Unequal fortune's gifts must be;
King Bele's child is not for thee.

"To Odin in his star-lit hall
Ascends her royal lineage all,
Thou only Thoroten's son give way,
For like thrives best with like away."

But Trithyof smiled, "My lineage low
Downward to death's dark vale may go,
Though Fortune wrong she may atone,
And hope may wear most kingly crown.

"High birth is might—its father, Thor,
In Thredvarg's castle gives the law;
High worth, all birth, he weighs above;
The bravest sword shall win its love.

" Yes, my young bride, I'll fight for thee,
 Though with the Thunderer it be,
 So my white lily, rest thy heart,
 Woe him who ever us would part."

We give here the conclusion of Canto 14th, one of the finest parts of the Saga.

TRITHYOF'S FAREWELL WHEN HE GOES INTO BANISHMENT.

Hermkringla's crest,
 Thou noble North !
 No more I'll rest
 On thy loved earth ;
 Afar from thee
 I'm doomed to dwell—
 Now, Hero—nurse,
 Farewell ! Farewell !

Farewell, thou high
 Valhalla's throne,
 Thou night's bright eye,
 Midsummer's sun !
 Thou sky as clear
 As Hero's soul,
 Thou star-throng dear—
 Behind me roll !

Farewell, ye cliffs,
 Rune—written o'er ;
 Ye glory shrines
 For mighty Thor !
 And ye, blue deep,
 I know so well,
 Green isle and steep,
 Farewell ! Farewell !

Farewell, ye graves,
 By waves so blue,
 Where snowy lines
 Their flower-dust strew !
 What green earth hides
 Saga sees well,
 And well decides,
 Farewell ! Farewell !

Cool streams and bowers
 In groves so green,
 Where blue-eyed flowers
 May hide unseen—
 Each childhood's friend
 Who knew me well—
 Our joy must end,
 Farewell ! Farewell !

My love disdained,
 My home is brent,
 Mine honor stained,
 In exile sent.
 Thou lonely sea,

Before me swell—
 • Young joy, to thee,
 A long farewell !

Tegnér's poetic and prose works have been collected and published in six volumes by his illustrious son-in-law, the poet Bottiger. Among these are three volumes of smaller poems and a volume and a half of larger poems. There is also a collection of his posthumous writings published by Elof Tegnér. Tegnér's name was proposed for the Archbishopric of Upsala, and he would have well graced that distinguished position, but just in the midst of his cares and honor his mind became clouded, and a stroke of paralysis removed him from the duties of active life.

His last days were passed tranquilly, and before his death the sunlight burst forth once more upon his shadowed soul, and he sang his last song, so full of strength and pathos—"Farewell to my Lyre." At midnight November 2, 1846, while a brilliant auroral display was visible he exclaimed, "I lift up my eyes to the mountains and dwelling of God," and his sublime soul soared upward to its home.

LYDIA M. MILLARD.

TIMELY PHILOSOTHY.

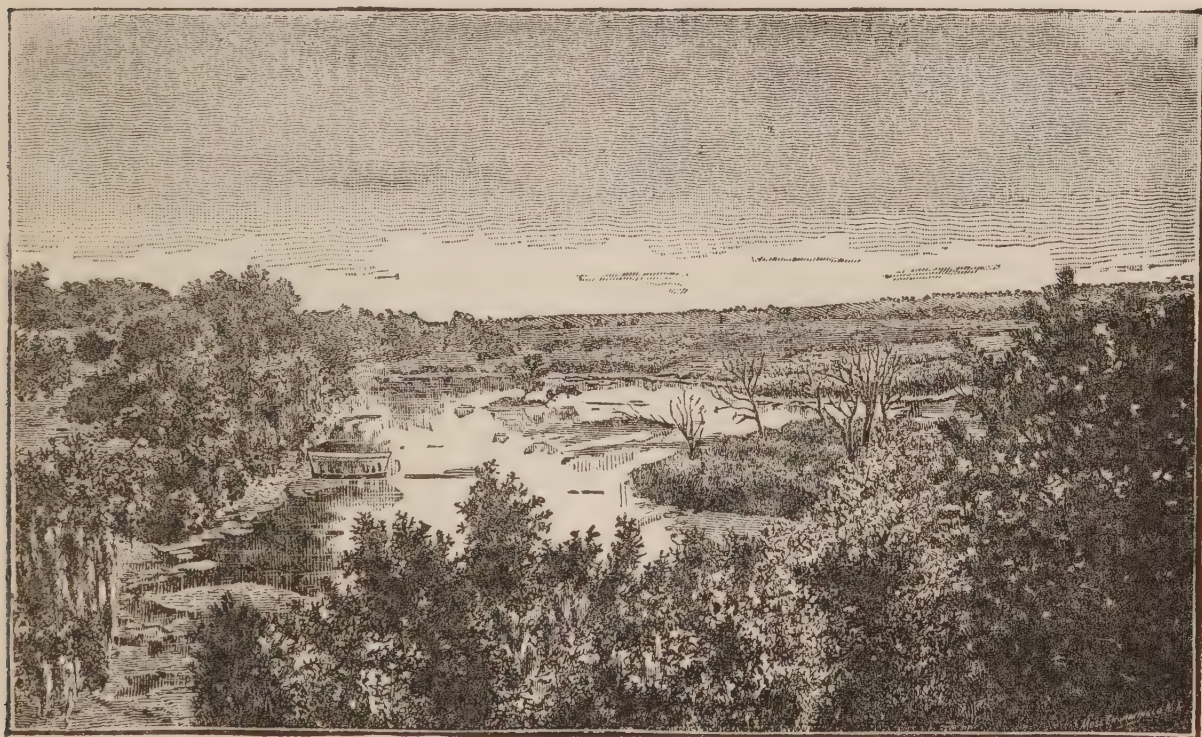
It never pays to foster pride,
 And squander wealth in show ;
 For friends thus won are sure to run
 In times of want or woe.
 The noble worth
 Of all the earth
 Are gems of heart and brain—
 A conscience clear,
 A household dear,
 And hands without a stain.

It never pays to wreck the health
 In drudging after gain,
 And he is sold who thinks that gold
 Is cheaply bought with pain.
 A humble lot,
 A cosy cot,
 Have tempted even kings ;
 For station high
 That wealth will buy,
 Naught of contentment brings.

THE SAN MARCOS RIVER.

THIS wonderful river is becoming one of the Meccas of the tourist, to whom belongs that enviable title. "It is a great, natural wonder well worth going a long distance to see. It is indeed a joy, glory, and blessing forever more to all the region round about," was written years ago by an editor who has since erected his "Lares and Penates" near the charming stream.* Many graphic descriptions have been written, but they who look into its crystal depths realize that pen nor brush, however skillfully

scene, reminding me of the habits of the hippopotamus. A number of cattle were feeding in the stream above us, wading nearly to their backs, plunging their heads entirely under the water, and gathering the grass which grows at the bottom. We ascended the river in a skiff to its fountain-head. It has no preliminary or tributary streams. It bursts immediately from the limestone ledge at the bottom of this ridge, and boils up with immense volume, like a vast cauldron underneath the surface, with a



LAKE SAN MARCOS.

wielded, can never portray the wonders developed there under mother Nature's eyes, when in her softest moods.

That Texans of Hays County should rejoice in this matchless river is not more wonderful, than that the dwellers near the "Mammoth Cave," or the "Garden of the gods," should have the faculty of Inhabitiveness largely developed.

Bishop Daggett says: I witnessed at the ford where we crossed, a curious

violence which agitates the mass of water for a considerable distance, and which threw the boat from the ascending column. Its average depth, for the distance specified, is fifteen or twenty feet, and its width about fifty yards. Above the point of emergence is neither chasm nor depression. The earth is level and cultivated up to the mountain out of which it bursts laterally and perpendicularly. Its temperature is uniform, winter and summer, at about 60° Fahrenheit. The water has a slight alkaline taste. It is as transparent as the atmosphere, and one could apparently

* Mr. I. H. Julian, to whose courtesy we are indebted for cuts and matter.

read an ordinary newspaper at the bottom. Every object is perfectly distinct, as in an aquarium.

The marvel of this wonderful river, however, is not its abrupt origin or its crystal clearness, but the wealth of sub-aquatic vegetation. Its margin is not only lined with overhanging shrubs and clustering heaps of wild cresses; and its surface in many places floating with wavy tresses of long and silken grass, springing from its depths and floating in the current off for twenty or thirty feet, but its entire bottom is covered with an almost unbroken tissue of deli-

cate museum be reproduced in the Eastern States, and in a higher latitude, it would attract the attention of the fashionable world and arouse the enthusiasm of rival artists. One must be incurably obtuse to look into this mirror of nature, and not be transported with its exquisite imagery.

A writer in *The Christian Leader*, of Boston, says: We took a walk to the head of the river, which broadening out into a miniature lake, flows from springs, issuing beneath the hills. We clamber down the rocks, and gather long tresses of Spanish moss drooping in profusion



SAN MARCOS SPRINGS. (HEAD OF RIVER.)

cately tinted and beautifully variegated vegetation blooming beneath the surface, under whose picturesque foliage the lithe and agile fishes perform their graceful motions; and whose crystal caves the imaginative Greek would have peopled with laughing water nymphs. I doubt if any water scene of the same extent abounds with more transcendent beauty. It is a genuine, original greenhouse. It is nature's own conservatory where her rarest productions are preserved in amaranthine freshness, encased in a framework of rustic grandeur, and seen through surfaces of perpetual purity. Could the San Marcos' natural

from the overhanging trees; we find lovely yellow and scarlet beans strewn on the ground, which prove to be seeds of the southern laurel. And such lovely wild flowers peeping out at us all along the way, from the golden lantana (cultivated as a house and summer garden plant with us at the North) to the wee blue forget-me-nots. We see great bunches of prickly-pear cactus; one or two Spanish daggers—we mean nothing more dangerous than a plant by that name called by us the “yucca,” often growing in Texas to a gigantic size. In Gonzales we noticed two of them growing like tropical trees with scaly poles,

bare, excepting at the top, where they were each crowned with a great cluster of sword-bladed leaves piercing straight upward.

We toss a bit of grape vine into the crystal expanse, watching the glassy ripples circle out and out, when we discover a fish darting up to inspect the strange object. Like a flash another and another swim swiftly and gracefully along, until we count five ; in another moment they disappear. No further coaxing can induce them to show themselves again.

Now we come to the mountain springs

there ; springs bubbling out from under the hillside rocks, which tower up steep from the brink on one side, while on the other there are stretches of cultivated gardens and fields. The water is clear and of such remarkable purity that in gliding along its glassy surface everything is visible on the bottom to the depth of thirty feet ! And such a revelation of the beauties of this underworld ! It exceeds anything that our imagination could picture ! It was as if we were floating over a fairy land ; a new, strange and enchanting region, far removed from this every day world, in



NORTH FOUNTAIN ASSEMBLY GROUNDS.

that bubble out from below the rocks clear and sparkling, while the river expands into a lake, smooth and glassy, with its islands of water-cresses and lily-pads, one kind of the latter being of oblong shape, cut square at the ends and looking as if crimped by a machine. This plant is peculiar in its growth, its roots being on the surface of the water, their fibres stretching from plant to plant, leading a floating life, unless entangled with stationary vegetation,

We were treated to the most charming boat-ride down this river that it has ever been our good fortune to enjoy. Little islands of floating vegetation here and

which we as prosy mortals live ! Every rock or inequality of surface down in those depths was covered with such growths of aquatic vegetation as we had never dreamed of before. The varieties of shade and color were actually bewildering. There were great mats of variegated foliage, sweeping up toward the surface, each cluster of leaves as brightly tinted and beautiful as blossoms. There were large patches of moss, dazzling in their vivid colors ; exquisite plummy ferns, and curious vegetable growths ; long cones of strange plants, to us, reaching up toward the light, somewhat resembling certain species of

the cactus ; and ever and again a gleaming down there of superb tints that would excite an artist to a pitch of distraction in attempting to paint them. All 'this beauty of vegetation was enhanced by what appeared to be shining gems—wee points of brilliancy sparkling all through the moss carpet of the rocks. These were small snail shells, with gleaming points of brightness, strewn lavishly all along this expanse of aquatic verdure. We saw the water lillies pushing their way to the air, their white stems looking like silver tubes, they were so transparent. Occasionally, away down below the surface, an impatient bud was opening in the watery world, a fact that we noted as showing what we had never supposed before, that in our less clear waters these plants may blossom below as well as on the surface.

In a place near the centre of the river the water is too deep for soundings. Not far from there several springs boiled up to the surface, and our little boat would be pushed back each time when the oarsman attempted to approach, which he did in order to show us the force of these subterranean springs."

"The world do move," and proof is not lacking. When the project of the Chautauqua Assemblies was first broached there were many predictions of failure, but instead of failing it has become a great, fixed fact. The light there kindled has sent its beams away to San Marcos, and her enterprising people have organized an undenominational "Texas Chautauqua," which opens July 1st and continues thirty days. Imagine the delight of studying amid such surroundings ; what a delightful outing ! memorable days will they prove where the pure, sweet waters of knowledge eagerly quaffed, are rivaled in purity and sweetness by the waters of the never-failing San Marcos river, now utilized for all domestic needs throughout the city. The geologist, botanist, artist, poet, clergyman, and teacher, will there find the gems for which he is seeking, and find them too in such an atmosphere of delight that he will never regret his journey thither. A very persistent temptation is voiced in the words, "we envy the pilgrims to San Marcos Summer Assembly, and the sojourners by her wonderful river."

A. E.

NOTHING AND SOMETHING.

Left "nothing!" O, that I can scarcely believe!

No land, no estate, and no treasures in store!

Cut off in his prime, and with "nothing" to leave!

Ah, then, in his death he was wretchedly poor!

Left "nothing" Left no sweet remembrance behind?

Left nothing to call forth the anguish of grief?

No brave, tender deeds in their hearts has he left,

Which now wring out sobbings and tears for relief?

Left nothing to satisfy honor or pride?

Left nothing the higher emotions to move?

Left no grateful heart, who, whene'er he is named,

Shall echo his praise in the accents of love?

* * * * *

Ah, then, he left "something!" I thought so, at first.

A true man he was ; he was honest and kind ;

He left a good name ; that is "something," my friend—

A treasure of treasures, his children may find!

'Tis "something," I think, of a father to speak

In clear, happy tones, and with no blush of shame ;

'Tis "something" to know, at his death, he bequeathed

The good heritage of a brave, honest name!

GRACE H. HORR.

HIS WEAKNESS AND HER FAULT.

CHAPTER III.

SINCE the horse was bought, there was no use in fretting over the piece of loving extravagance. So they all took as much comfort as possible, and Maud and Grace spent many pleasant hours in the pretty phaeton, driving through the charming country roads. One little speck of cloud appeared in Maud's sky about this time. Harry, who, by the way, was fast growing absorbed in business cares, and tired and abstracted at home, seemed strangely interested in Mrs. Stone. The two held long conversations together, and it was noticed by the neighbors, that Mr. Hubbell appeared very much pleased with the pretty young widow. Maud knew in her heart that Harry was a true, loyal man, and yet she often felt annoyed by her husband's absorption in his old friend. In spite of Grace's cautions money was spent very freely in the little establishment, and Harry became more and more bound in the meshes of worldly care.

"I don't see how Harry can afford to spend so much," said Grace one day to James.

"He is speculating," replied James, "and I suspect with Mrs. Stone's money; he has been very fortunate so far."

"Oh!" said Grace, drawing a long breath, "that is why he has so much business with her lately. I knew it must be all right."

"Of course it was all right. Maud isn't jealous, is she?"

"She is hurt and anxious. I think Harry ought to tell her about his business. I shouldn't like you to treat me so."

"It is mistaken kindness on his part. He wants to keep all trouble from Maud. I am afraid for him, however, his temperament is so sanguine, especially when stimulated by wine. His successes on the 'Street' will make him careless, and

I don't know how he will bear failure if it should come."

Time passed on by weeks and by months, and in the main there was peace and content in the two pretty homes.

"I begin to be worried about Harry," said the pale little woman one day to Grace, "he wasn't home till very late last night, and he looked so tired this morning that I begged him to tell me what was the matter. He said, almost roughly, that he was all right; and went out very soon without even kissing baby. Is it possible, Grace, that Harry ever drinks too much?"

"I am afraid Harry is having trouble about money," her friend replied; "if I am not mistaken he has been speculating a little."

"O dear, why don't he tell me about his business?" groaned Maud. "But I suppose it is my fault, I'm such a baby." "You are the wife he wants," said Grace, "and therefore the fittest of anybody; but I don't think you see Harry's character as it really is."

"You think he is weak?"

"I think he is extremely impressible. To be impressible to wrong influences amounts to weakness. It is practically impossible for Harry to follow the inclinations of his highest nature, when he is tempted to do otherwise."

"Well, what can I do now!"

"I don't see that there is anything for you to do but to be very patient, and loving. There may be trials before you; none I hope that can not be overcome. I am sure of one thing Maud, dear, Harry will not bear reproach and tears. You must make the best of your position, just as it is; even if you suffer in your heart when smiles are on your face."

"What are you talking about, Grace? I am the last person to suffer with smiles on my face. If Harry is neglectful or unkind I shall be very miserable, and I must show it too."

While Maud and the baby waited for him that evening, Harry was drinking to drown trouble, at a fashionable café. He had bought a certain stock, expecting it to rise, and had lost heavily. He had applied to Grace's father, old Mr. Fanton, for assistance, but that clear-headed old gentleman declined, his private faith in Harry having been shaken by the latter's growing habit of drinking.

Thinking sad thoughts, now fearful and then again hopeful, she went out on the vine-shaded piazza to wait for her husband. She had been there a few minutes when she heard the tramp of horses, and soon she saw a span dashing violently along the street; the driver, who had lost all control, was Harry, and by his side sat Mrs. Stone.

CHAPTER IV.

THE horses were stopped before any danger was done except to poor Maud. The shock was too much for her, and she was sick for weeks afterward. A cloud now spread itself between the hearts of husband and wife. In Maud's nature there was an element of jealous pride, that wrought grievous injury to love and faith. I believe that everything might have been explained, if Maud had tried to win Harry to explanation; but she took the position of one injured, and grew cold and hard; and Harry, feeling that he was unjustly accused, resented the accusation.

In this emergency James tried to set Harry right; but found it much easier to help him in money troubles.

"I can not confess to Maud, when I have done nothing to injure her," Harry said. "I had a good reason for riding with Mrs. Stone; it was in Maud's interest, and I will not explain farther to anybody. I can not conceive how Maud can doubt me if she loves me. I had drunk too much that day, or the horses would've got the best of me."

"But you must not forget that you have Maud's happiness in your hands," suggested James gently.

"And she has my happiness in her hands; I was never half so miserable in my life. If she carries about that pale, reproachful face much longer, I shall stay away from the house as much as I can. You needn't look at me so sternly; I can't help it. If Maud will love and trust me as she used to, I will be the same, otherwise I can't be."

"But has not Maud some right to distrust you? You must forgive me, if I remind you that you have not given Maud reason for full confidence."

"I have drank too much three or four times, that is all I have done; she has never objected to my drinking, and I would willingly now promise never to drink again, if she would ask me to; but she doesn't act as if she cared. Nobody could be sorrier than I am, for her sickness."

It is almost incredible what ravages pride will make in love's paradise. Harry was absolutely true to Maud in every fibre of his heart, and her doubt was like a poisoned wound to him. Of course he could have borne it easier, if he had been conscious of some degree of blame. He knew there was blame in excessive drinking, but Maud had seemed to care so little about it, and he had really sinned so few times that he felt her coldness was due to another cause.

Foolish Maud was doing exactly what Grace had feared. She had not guarded against Harry's weakness, and now when he was betrayed by it into trouble, she was not helping him by the charity that endures and hopes all things.

Grace tried to show Maud that Harry was to her in some respects as most husbands are to wives, child as well as husband. "Love him," was her teaching "and he will yet be all you need and desire. His heart is yours, and by such a tender heart as his you can lead him where you will, if you do not pull rudely and selfishly. You can't afford to let Harry's love drift away from you."

When Maud was left alone after this exhortation, she wept violently for a

time and then resolved—"I will be good to Harry, whether he is good to me or not."

In the meantime, where was Harry? He had hurried through the day's business, moved with new tenderness for Maud, and for the little innocent darling that so utterly depended upon his manliness. "They are both babies," he said to himself, "and I won't mind Maud's coldness; I will go straight to her and force her by any and all means, to be her old, sweet self." So, full of new resolve he walked rapidly along the street, when he was interrupted by a familiar voice.

"Will you come in one moment, Harry?" was the gentle entreaty.

"Don't go this time," replied an inward voice, "go home as you had resolved, and see Mrs. Stone at your own house."

But Harry, sensitive on the subject of his honor, grew angry with his own conscience. "Can't I consult with a woman upon business, when I choose, because another woman is foolishly jealous?" thought he. So he followed the lady into the house, and as the consultation was long, involving money matters that Maud knew nothing of, and business for Mrs. Stone, an hour slipped by before Harry was permitted to leave.

Maud was caressing her baby, and making good resolutions, when old Mrs. Watrous, one of her neighbors, called to inquire after her health.

"We are pretty well, thank you," said Maud, looking up with a bright smile.

"I am glad you are, really glad; I heard you didn't get up very fast."

"Not very fast, but I'm all right now, I hope."

After a few minute's talk the caller said: "Wal, I must go; I don't get much time to set round; Ethan's to home, and the old man makes me a sight of trouble."

"Is he sick?"

"Bless me, didn't you know it—been bed-ridden these two years. Come and see

me; I should have run in before, but I never knew when you was alone. I saw Mr. Hubbell go into Mrs. Stone's as I was walking by; they seemed very much took up with something, and I said 'I'll go in, and see Mrs. Hubbell a minute.' Good bye."

A gossiping old woman's statement! Of what account was it? It was a sudden breeze sweeping across the fire, smouldering in Maud's heart, making it flame up fiercely. The moment Mrs. Watrous was gone she clasped the baby tightly to her heart, and ran up stairs, going into her own room and locking the door.

Although fully determined not to see Harry when he came home, Maud, nevertheless, watched for his coming with eagerness, and when he came he ran up the stair in the old boyish way and tried the door.

"Who is there?" said Maud, in a tone so icy that it might have come from a grave.

"Harry!" came in reply. "What is the matter? Why is the door locked?"

"There is nothing the matter. I feel more secure with the door locked, since my husband and protector chooses to spend his time with my rival."

Harry turned away instantly. The word "rival" was well chosen, and coming in that tone of freezing bitterness did its work thoroughly. In an hour he was in a certain club-room drinking desperately. "Hold on, old fellow, you are taking too much," said one of his friends. "I can't take too much; I want to forget—to drown the past and future."

"Nonsense! What's the use of being a baby? Something has gone wrong, I suppose; wait and it will come right again. Come and have dinner; a good dinner will cure most troubles."

"Not my troubles; I'm not like you fellows who take life so easy; I believe you haven't any hearts."

"Oh, you feel too much! What's the use? If you've got a wound, time will cure it. Hold on, I never drink enough

to get my head wrong. I want to know what I'm about."

His friend succeeded in dragging him into the street after a while, and the two walked up and down to kill time. Later they strayed into the Academy of Music, but Harry was too restless to stay long, and by ten o'clock they were at the club again.

In the meantime Maud, left to a thousand conflicting feelings, soon give way. She was seized with a violent neuralgic headache and, as usual in her troubles, sent for Grace. She told her friend what she had done, and added, "I'm afraid I did wrong; perhaps Harry was not so much to blame after all."

Then Grace explained what had been a secret; that Harry had speculated largely with Mrs. Stone's money, in hopes of securing more luxuries for his wife; had lost, and lost, it was believed, mainly through recklessness induced by too much drinking.

"His affairs are at present very much complicated with Mrs. Stone, and he has occasion to see her," said Grace. "What you have to do is to tell Harry that you know all; that you have been wrong in suspecting him, and that he has been wrong to keep anything from you."

"Indeed I will never suspect Harry again, if he will forgive me this time," said Maud, her hands pressed to her throbbing head. "I will make amends; indeed I will!" she added. "Oh, I wish he would come home. But he won't come. Can't we send for him? Will not James go after him?"

Grace went home, and soon afterward her kind husband sallied out to find Harry.

Knowing Mr. Hale's intimacy with Harry, he sought him first at his house, then at the club, and there he found Harry. He was alone, sitting by a table with his face buried in his hands, an untasted dinner before him.

"Come, come, Harry," said James, taking hold of his shoulder; "Maud is

sick, and wild with anxiety about you."

"Maud? Maud wouldn't let me in. She doesn't care for me."

"She does care for you; she has sent me for you; she is sick, and frightened about you—do you hear?"

Yes, Harry understood, at last.

"Come, let us go," he said, springing up. "Do you say she is sick? Why don't you hurry? She may die before we get home."

Impelled by the fears that crowded his excited brain, Harry hurried to the ferry, going at such a pace that James could scarcely keep up with him.

"How lucky!" he exclaimed; "there is a boat. Come, James."

"Don't take that boat, the chain is up!" screamed James, as Harry ran down the bridge. "Come back, I tell you, the boat is off!"

But the warning was in vain. Harry, intent upon one thought, the thought of his wife sick and wanting him, heard nothing, saw nothing, but the slowly receding boat. His eye, unable to justly measure the distance between the boat and the dock, assured him that he could easily leap upon the deck. He sprang, just as James, not a yard away, was frantically trying to reach him with his outstretched hand, sprang not upon the boat, but into the black treacherous water.

Harry Hubbell was not drowned. He was a vigorous swimmer, and there happened to be available help at hand. But the terrible baptism washed away some of his illusions; his pride, and self-confidence were undermined; he saw plainly his own weakness, and saw also that weakness must allow limits, if it would avoid danger.

"I give it up," he said to James, as the two friends were taking some refreshments, after telegraphing to Maud of Harry's safety. "I will never boast again that I am able to take care of myself. I am weak, miserably weak; I give way every time there is any real strain."

"You give way, because you do not give your true self a chance; you cloud your faculties with liquor at the moment when you need their perfect action most."

"That is the very place where I am weak. I am not patient; I can't bear trouble; I suffer so much that the temptation to take stimulants is irresistible."

"That being your weakness you should guard against it, by putting yourself out of the reach of temptation. Forgive me, my boy, for preaching to you. I'm a little older than you are, you know."

"Forgive you! I am eternally grateful to you. You have seen me all along as I now see myself. Give me your hand, James, and be witness to my pledge. From this night forward I will never touch intoxicating liquor of any kind."

As they approached the cottage homes nestling in vines and flowers, "What will Maud say, when I tell her that to be honest we must give up our house and furniture?" Harry asked.

"Is it so bad as that?" said James.

"Yes, I used Mrs. Stone's money. She is looking for a furnished house; and ours suits her. By giving it up to her I can partly make good her losses."

"I have no fears for Maud," said James. "In the first place tell her all your business with perfect frankness; she has been blind, as well as you, my dear boy, but you need neither of you fear to look about you, since you have each other."

Before a month passed Mrs. Stone occupied Maud's pretty establishment. The little wife gave up her house cheerfully when she heard the story of her husband's misfortunes and false impressions, and not long afterward the young couple with their baby-girl were settled in a few rooms that were taken by Maud, with a heart gladdened by the full reconciliation.

They had a tiny kitchen, a bedroom, and a parlor, so called by courtesy. It

might be "a very narrow and humble home," according to the traditions of the aristocracy where the young people had been reared, but quite wide enough for honest endeavor and faithful love.

To the chastened wife, any place was beautiful and sufficient that held her husband and child; and Harry was full of exuberant joy at the prospects of being free from debt.

"How are they getting along?" asked James, when Grace returned one afternoon from a visit to the "snuggery," as Maud called her second floor.

"Splendidly; they are developing fast, I assure you. Maud keeps accounts, and Harry goes marketing, and takes care of baby sometimes to relieve Maud."

"Well, I think they are safe now; they have voluntarily put themselves in strict limits, and the effort to get out will give them strength to take care of themselves when they are out."

Everything goes well when one is on the right foundation, therefore I need not follow Harry and Maud much farther. One little incident will serve to show the course of Harry's growth. One evening, after the young housekeepers had lived in their little home some months, James "ran around" to have a chat with his friend. He found him holding the baby on one knee, and the big Bible on the other.

"See here," said Harry, "read this text," and James read: "There is a way that seemeth good unto a man, and the end thereof is death."

"It was high time that I took a turn to the right, wasn't it, James?" said the happy young father, putting away the Bible and beginning to toss up the baby.

"High time!" replied James, seriously; "and now that you are on solid ground, you must 'lend a hand' to the poor fellows that crowd the road you have been saved from."

"God helping me, I will!" said Harry fervently.

MRS. M. F. BUTTS.

THE END.



PERSONAL RESPONSIBILITY IN CONTAGIOUS DISEASES.

JUDGE DIXON, of New Jersey, in a recent charge to the grand jury at Paterson, said: "If a man, conscious that he carries about with him the germs of contagious disease, recklessly exposes the health and lives of others, he is a public nuisance and a criminal, and may be held answerable for his conduct. If death occurs through his recklessness, he may be indicted for manslaughter. It is held, that, where a person knowingly communicates a contagious disease to another, and death results, the crime is manslaughter." Judge Dixon added: "The man may be indicted also for spreading the disease by conscious exposure of others thereto by his presence in public places, such as on the streets, in halls, etc. He might be indicted as a public nuisance for endangering the public health in this way, even if no consequence had followed. The law provides some penalty for such offences against the public safety."

"While for obvious reasons," says Bishop in his *Criminal Law*, "a man is not punishable for being sick of a contagious disease in his own house, though the house stands in a popular locality, and while his friends are not guilty of crime in declining to remove him, yet, if the sick man goes out into the public way, carrying with him his infection to the danger of the public, or if one takes

out an infected child, this act, at the common law, subjects the doer to an indictment."

The house infected with a contagious disease should be marked in such a way as to warn the public; and, after the disease has disappeared, public safety demands that disinfection should be thoroughly and intelligently done. To accomplish this local sanitary associations are an absolute necessity. Mr. Simon, the English sanitarian, says that the following principles should be embodied in the common law:—

"1. That each case of such disease is a public danger, against which the public, as represented by its local authorities, is entitled to be warned by proper information. 2. That every man who, in his own person or in that of any one under his charge, is the subject of such disease, or is in control of circumstances relating to it, is, in common duty toward his neighbors, bound to take every care which he can against the spreading of the infection; that, so far as he would not of his own accord do his duty, his neighbors ought to have ample and ready means of compelling him; and that he should be responsible for giving to the local sanitary authority notification of his case, in order that the authority may, as far as needful, satisfy itself as to the sufficiency of his pre-

cautions. 3. That, so far as he may, from ignorance, not understand the scope of his precautionary duties, or may, from poverty or other circumstances, be unable to fulfill them, the common interest is, to give him liberally out of common stock such guidance and such effectual help as may be wanting. 4. That, so far as he is voluntarily in default of his duty, he should not only be punished by penalty as for an act of nuisance, but should be liable to pay pecuniary damages for whatever harm he occasions to others. 5. That the various undertakings which in certain contingencies may be specially instrumental in the spreading of infection, water companies, dairies, laundries,

boarding-schools, lodging-houses, inns, etc., should respectively be subject to special rule and visitation in regard to the special dangers they may occasion, and that the persons in authority in them should be held to strict account for whatever injury may be caused through neglect of rule. 6. Finally, that every local sanitary authority should always have at command, for the use of its district, such hospital accommodation for the sick, such means for their conveyance, such mortuary, such disinfection, establishment, and, generally, such planned arrangements and skilled service, as may, in case of need, suffice for all probable requirements of the district.” —*Science News*.

THE SINGULAR CASE OF MR. NATHAN BROWN.

THE subjoined account of a peculiar misfortune is found in a private record compiled with care by a venerable gentleman of a former generation for his own recreation. What a treasure such a case would be considered by the experts and scientists of the present time! The words of the original are given as far as consistent with the necessary condensation.

My uncle, Nathan Brown, was by occupation a cooper. He followed the seas in that capacity from early life. He is said to have been uncommonly bright and active as a child, and bid fair to become a useful man. He was taken prisoner during the French war, in 1755, and was confined on a prison-ship at some port in the West Indies, where he was brought into great straits for food and the common comforts of life. These hardships probably laid the foundation for the troubles which followed him, by their effect upon his mind.

At about the age of twenty-one he fell into a condition which his family and many others ascribed to the influence of evil spirits under the operation of witchcraft. I do not believe we have any

such beings as witches among us in these days, but in regard to my uncle his friends have either been most grossly deluded by their imagination, or they have seen some very unaccountable things, and various experiments they tried confirmed them in their opinion.

It is stated that on the first appearance of this malady, either from involuntary distortion of body or some other unknown cause, my uncle's vestments would suddenly become unloosed as he was walking the streets, his waistcoat, though buttoned from top to bottom, would without any apparent cause fly open. His limbs became strangely affected, all his motions of body were repeated and re-repeated numberless times. It was a frequent occurrence for him to retire to his room on Sabbath morning to dress for meeting, and to be unable to leave it for the day. After taking off his undergarment and preparing to replace it with another he would labor in vain to effect his purpose, drawing the garment toward him and extending his arms to put it on, and then pushing it from him alternately for hours together, laboring so intensely as to be in a con-

stant perspiration in mid-winter. After becoming exhausted in this way, and all the time refusing any assistance, he would recover his self-control at the going down of the sun, dress himself with little or no difficulty and spend the evening with the family as cheerfully as if nothing had been the matter. In his later years he allowed assistance and less time was taken up, though the difficulty was not removed.

His walking was attended with a like trouble. In the street, either alone or in company he would suddenly stop as if an impassable barrier or yawning precipice were immediately before him, as if a line were drawn which he could not possibly cross, and he would stand in the same place making violent efforts to go forward in vain, for a quarter of an hour. He usually declined any help, and if force was used to get him over the place he was never satisfied until he had returned to it, even if hours and days intervened, then he went through his usual motions to "get fairly over it," stepping backward and forward again and again till by a sudden spring, like leaping a ditch, he would pass on quickly until another barrier presented. These halts would occur eight or ten times in the distance of half a mile, and detain him an hour or more. These obstacles appeared equally whether he walked under a burning sun, in a pouring rain or driving snow-storm, as well as in fine weather. If obliged to leave his course by a passing team or other cause he would return immediately and take a new departure. I have witnessed his situation as above described perhaps hundreds of times, and walked with him. The arm of a friend who would exercise patience, and indulge him in some measure in his infirmity, was agreeable to him, and if rightly managed would sometimes accelerate his progress, while the interference of others was injurious.

All the motions of body and limbs partook of the same character, so every

change of place and dress was avoided as much as possible when he was at home. He usually wore his hat in the house and for years slept with it and his other clothing on.

He worked at his trade as sea-cooper, making regular voyages while in this condition, and gave satisfactory work, only requiring plenty of time.

In later life he was employed in discharging cargoes, and usually was detailed to certain duty that required him to "hold on."

The same trouble affected his speech. He had readiness of thought, a retentive memory, and a pleasing manner of expressing himself when not hampered by his infirmity. He was a favorite in his circle of friends and cronies but they were obliged to exercise patience in listening to his talk. Nearly every sentence would be repeated several times, and he would often recall words that he seemed to have gotten well over, especially if he had been hurried or forced at all, and even occasionally had to begin the whole subject anew. He had a pleasant and familiar habit of taking one by the hand and holding fast while he talked, or rather made violent efforts to do so.

If he was relating anything he had heard he would say, "he told me," "he told me," "he told me," from ten to twenty times, and after a while forced his way to the next sentence. If his listeners exhibited impatience he would say with a smile, "I will tell you by and by," using many more words in apology than he could command on the main subject. In this there was no deficiency of intellect, no lack of distinctness of thought, nor want of words to use, nor natural impediment of speech, but the barrier, like that in the path.

One other peculiarity was his aversion to stepping on a painted floor, particularly if the color was yellow, and for this reason he did not visit certain near relatives for years together.

He was known and beloved by his townsman, and was very kind-hearted

and especially fond of little children.

My uncle was himself inclined to ascribe his trouble to witch-craft, and had in mind the names of persons to whom he was disposed to impute the guilt of bringing this misery upon him ;

but as he reached the ripe age of seventy-eight years, and outlived all those individuals, their enmity must have been handed down to others through the agency of evil spirits, if that doctrine is accepted at all. / MARY WINCHESTER.

PHYSICAL DEVELOPMENT IN RELATION TO THE WORK OF THE MINISTRY.

THE work of the minister falls properly under three heads : his work as a preacher, as a pastor, and as an organizer. Now it is true that his physical development is closely related to effective performance of all these classes of duties, and no one will deny that the clergyman having weak and tuberculous lungs, or a larynx weakened by disease, will be unable to preach with the same vigor that would be possible under opposite conditions.

No one will deny that a man of weak and sickly body will be unable to perform pastoral work and the work of church organization with the same ability that he would if strong and vigorous. And yet how large a number of clergymen pay little or no attention to their physical development, but give much attention to culture of mind and heart, apparently not realizing that bodily conditions largely determine mental and emotional activity.

It is therefore the purpose of this paper to call attention to some thoughts upon the subject of physical development in relation to the work of the Ministry.

All true methods of education include not only the development of the mind but also the development of the body. The truth is that many of our colleges in the past have been educating minds, but utterly ignoring the education of the body ; the result of such education being a set of feeble and sickly graduates, whose cultivated brains were of comparatively little use to them on account of the feeble bodies in which they dwelt. Fortunately, however, within the past

few years improved methods of education have been introduced in a few of our colleges, and we have to-day some colleges in which men may be so built up as to possess sound minds in sound bodies.

Thus Amherst College makes systematic physical exercises the daily duty of each student at a specified hour, the same as any other study. Oxford, England, has Archibald MacLaren who has done more for physical education by his writings and by his personal training of students than any other man in England.

Harvard has built (or is building) a costly and well equipped gymnasium, and placed Dr. Sargent, formerly an athletic trainer in New York at the head of it, and President Elliott speaks in the highest terms of the marked improvement in the progress of the students of that institution under the new training. Williams and other colleges have also provided good gymnasiums for their students ; this wise system is destined ultimately to prevail throughout the colleges of the whole country, so that the future ministers will have an equal chance, with other young men, of having a well developed body. But as the case now stands with us many of our consecrated clergymen are impeded in their work through poor physical development, or break down at fifty when they ought to last till seventy.

The question arises, how does lack of physical development impede the minister in his work ?

1. In the first place it weakens the power of his vocal organs, often a serious matter ; for it has been shown conclu-

sively by anatomists and vocal teachers that the vocal cords and other muscles and nerves of the larynx can not be well developed alone ; but that they are in a large degree dependent upon the tone and condition of other systems of muscles and nerves throughout the body. The minister therefore who has a symmetrically developed body, other things being equal, is much more likely to possess a good voice under appropriate vocal training.

2. Lack of physical development weakens his spiritual power. Perhaps all ministers, certainly all who are in the habit of speaking without manuscript, have noticed the comparative weakness of their spiritual force and earnestness when preaching during poor health. They have been unable to feel that degree of spiritual life during poor health, which they experienced while well, and hence have been unable to impart that spiritual glow to his hearers. In like manner a clergyman who has poor physical development can not reasonably expect to maintain the same spiritual power, especially so far as relates to its influence upon others, that he might possess under better physical conditions.

3. Lack of physical development weakens the minister's power of driving the thoughts of his sermon home upon the minds of his hearers. How many sermons are preached every sabbath, which utterly fail to *impress* the hearer for this very reason? How can the cultivated clergyman reasonably expect to drive home his thoughts if he has not that physical force and energy that can come only from a healthy and vigorous body?

Says Mr. Blaikie, one of the most influential of our popular writers upon the subject of physical development, "Have the magnificent breadth and depth of Spurgeon's chest, and his splendid outfit of vital organs, no connection with his great power and influence as a preacher of world-wide renown? Have the splendid physique and abounding

vitality of Henry Ward Beecher—greater almost than that of any man in a hundred thousand—nothing to do with his ability to attend to his duties as pastor, author, lecturer and editor, work enough to kill half a dozen ordinary men, and with the tireless industry which must precede his marked success in them all? Are not the towering form, the ruddy health, and grand manly vigor of Dr. John Hall weighty elements, first in putting together, then driving home the honest, earnest, fearless words which all remember who ever heard him speak? Have not the great bodies of those two young giants of the American pulpit, Phillips Brooks and Joseph Cook, proved most valuable accessories to their great brains? Is there anything feeble about any of these? Put the tape measure around them any where you like and see how generous nature has been with them. Is it all a mere chance that they happen to have splendid bodies? Why is it that we never hear such as these having ministers' sore throat and blue Mondays? Do sound and sturdy bodies, and due attention daily to keeping them in good repair, have nothing to do with their ability to cope at all times with the duty lying next to them—and with their attention to it, too, in such a way as to make them so much more effective than other men in their great life's work?"

4. In the fourth place it is obvious that the pastor who is poorly developed physically, will grow weary under half the amount of pastoral work that he might endure under more favorable physical conditions.

For these and other reasons it appears to me that more attention should be paid by our ministers when students to physical development. A young man like the one who graduated from the last Senior Class in our Presby. Sem., of the North West, who was wise enough to take systematic physical exercise in Williams College gymnasium daily during the four years of his course there, and also

at the Y. M. C. A. gymnasium in New York, during his junior year, spent at Union Theological Seminary, graduating from our Seminary with a remarkably symmetrical and well developed body, in marked contrast with his fellow students in this respect, is far more certain, other things being equal, to be an effective minister of the gospel than one who has not thus attended to bodily development.

Then it also appears to me that after entering upon life's work in the ministry, it is the duty of each clergyman, for the sake of the cause, and for his own sake, to appropriate an hour or so a day to keeping up a healthy tone and condition of his body. If this were done by many, as it was done by William Cullen Bryant during life, and as it is done by Mr. Gladstone, of England, and by some clergymen with whom I am acquainted, the number of clergymen troubled with dyspepsia, and headache, and nervous difficulties would rapidly decrease.

That this matter will be much more attended to in the future than in the past, is indicated by the appearance in the last few years of such admirable works on the subject as "Physical Education," by Archibald MacLaren, and "How to get Strong and How to Stay so," by William Blaikie, and others, and by the increasing number of colleges which are taking action in the matter of providing physical exercises for their students.

REV. W. R. SCOTT.

if in debt. Debt is something that can not always be avoided, although it never fails to produce, in persons of principle, an amount of mental worry that is absolutely distressing. Mental tension, pecuniary trouble, is one of the chief causes of insanity. Men struggle for a competency, because they, especially those not far removed from poverty, fear poverty, not for themselves, but for others.

A father will suffer more in the thought that his wife or daughter may be left penniless than he will if the family physician tells him that the wife has an incurable cancer, and may die any moment, or that the daughter will be crippled for life. He prefers even this to the thought that she may be forced to manual labor. It is true that poverty in our artificial state of society involves all the miseries—hunger, overwork, humiliation, and sickness, yet we can hardly understand why men should not choose them all rather than sickness and physical suffering.

The man who commits suicide from pecuniary troubles is, nine times in ten, found to be one who is overworked, or who has raged secretly or openly at the apparent injustice involved in work that brings no return, or who, haunted by fear of poverty, has lived beyond his income, incurred annoying debts, and takes his life to escape the consequent misery and mental agony. Nothing overturns the mental balance so surely as a long continued sense of injustice or long continued debt, and nothing is so frequent a cause for suicide. "Hope is said to spring eternal in the human breast," but in the matter of money-making years of non-success kill hope and destroy mental vigor and bodily health. No other form of misery produces quite the same impression as financial wrong. To be a healthy man, learn to bear cheerfully the misfortune as well as the good fortune of life. Therefore, the mental requirements of the laws of health are cheerfulness, contentment, and calmness, and that man live within his income, however small.

HEALTH AND PECUNIARY CONDITION.

—A western newspaper very reasonably affirms that one's condition for health or disease often depends upon his pecuniary state. To insure health, so far as human effort can control the matter, one should, above all, be cheerful, contented, and calm. You can not do this if you intentionally or unintentionally incur debt, for debt is embarrassing and painfully annoying. No person of the least pride or self-respect can possibly be comfortable

NOTES IN SCIENCE AND INDUSTRY.

An Ancient Egyptian Statue was discovered by a party of laborers not long since, and the Inspector-in-Chief of Egyptian Coast Guards, to whom the discovery was reported, writes as follows concerning it: "The statue was found on the occasion of my having ordered some of my men to dig for stones to repair a fort near Aboukir, over the supposed ruins of the ancient town of Canopus. They soon announced that they had dug up a carved granite pillar. I at once excavated it, and found it to be a statue of red granite, about $10\frac{1}{2}$ feet high. On January 1st Prof. Wilbour, the well known antiquary and Egyptologist, at the request of M. Maspero, director of Egyptian museums, came with me to decipher the hieroglyphics, and pronounced the large figure to represent *Ramesses II* (the Pharaoh in whose reign Moses was born), and the smaller figure to be that of his son, (who was drowned while pursuing the Israelites across the Red Sea). It is about 3,400 years old, and is in excellent preservation, and lies about three-quarters of a mile from the shore. With some gear from the fort I raised the statue on end. There are hieroglyphics down three sides and on the heart of the figure. The back and front and the left side are covered with them. As the ground has never been properly excavated, I hope to be lucky enough to find some more similar objects in the neighborhood. A statue very much resembling this one is one of the sights at Sakhara, near Cairo. The stone is Sienite granite, from Assouan. A picnic party recently held here unearthed a considerable number of old Greek coins. Near the spot where the statue stands are some gigantic granite pillars, said to be part of the Temple of Serapis, for which this spot was once famous. In those days the Canoptic mouth of the Nile flowed out by Aboukir."

Rubbish not all Good for Fertilizers.—The writer of the article, "The Value of Old Shoes," in the March number of the JOURNAL, has apparently fallen into the error of thinking that plants can form good wholesome food from any kind of worthless or poisonous material. The truth is, nothing can be of any value as plant-food

unless it contains some of the elements required for plant growth; and many substances are capable of injuring or destroying plant life. Nature always disposes of poisons in the best manner possible under the circumstances; for example, if any substances are present in the soil, which are capable of forming sparingly soluble compounds with the poison presented, the poisonous substance is combined with the substance which will form with it the least soluble compound; but unfortunately when poisonous minerals are presented to plants, the right substances in sufficient quantity are not always present to prevent absorption; and in some cases there is no substance which is capable of making a given poison absolutely insoluble; and therefore inabsorbable. Prof. Edmund Davy, and others, have found arsenic and other poisons in plants in quantities which were thought to be injurious to those who ate the plants. Prof. Jas. F. W. Johnston, in his lectures on the "Application of Chemistry and Geology to Agriculture," at page 80 says: "It is a matter of frequent observation that the roots absorb solutions containing substances which speedily cause the death of the plant. Arsenic, opium, salts of iron, of lead, and of copper, and many other substances are capable of being absorbed in quantities which prove injurious to the living vegetable."

HENRY A. SPRAGUE.

The Coal Fields of the North of France.—For the first time since 1849 the output of coal from the mines in the north of France shows a decrease, the total for 1884 having been 9,430,000 tons as against 10,050,000 tons in 1883, this being equivalent to a diminution of rather more than 6 per cent. According to the returns which have come to hand for the first six months of the present year this decrease is likely to be still more marked, and at the same time there has been a falling off in the quantity of coal imported, amounting to about 11 per cent. for last year. According to the returns published by the Minister of Public Works, the number of miners employed in the northern coal mines are 47,152 out of a total of 113,000 for the whole of France. The

amount of money paid annually in wages to them is about \$25,000,000, this being equivalent to \$240 for each man, but while in some of the southern coal mines, notably in the department of the Gard, the wages amount to \$250, they fall as low as \$215 in the Nord. This sum does not include indirect additions to wages, such as house rent at a reduced rate, medical relief, coal, etc., which can not well be put into figures. The average cost of raising the coal is as nearly as possible \$1.20 a ton for the whole of France; but while it is as low as 85 cents in the basin of the Allier and \$1.00 in the Pas de Calais, it reaches \$1.60 in the coal mines of the Gard. The average annual output of each workman is 263 tons for the whole of France; being 320 tons in the department of the Aveyron, 293 in the department of the Gard, and only 287 tons in the Pas de Calais. Many of the French coal mines appear to be worked at a loss, for the official returns for 1883 state that while 190 realized a total profit of \$8,561,400, the 125 others showed a loss of \$1,268,600.

A White Gorilla.—A white gorilla is on view at the Royal Aquarium at Westminster, London. Whether the animal is a true species or a highly developed cross-bred is a question for the naturalists. Its height is about twenty-six inches, and its age probably three or four years. The whole of its body and limbs, both arms and legs, are almost free from hair, and it has no tail. The animal is very gentle and affectionate, clasping its keeper around the neck and kissing him like a child. It drinks from a tumbler, and has a very intelligent manner. It is housed in a large, handsome cage or chamber, with an entire glass front.

To Detect Trichinæ in Meat.—The *Micro. Journal* gives the following method for this purpose: Slices, two or three millimeters in thickness, are taken from several different parts of meat to be examined. The pieces are preferably taken from the surfaces of the muscular portion of the meat. A series of thin sections are made of each of the pieces, and these are all plunged into a solution composed of methyl green one gram, distilled water thirty grams. After about ten minutes maceration, the sections are taken out, and placed to decolorize in a large vessel filled with distilled wa-

ter. They remain there about half an hour, the water being agitated and changed two or three times. Finally, the water having become quite limpid, it is stirred up with a glass rod, interposing the vessel between the eye and the light, when the sections containing the trichinæ are distinguished quite readily with the naked eye. The trichinæ appear in the form of small elongated particles of a fine blue color. The methyl green becomes fixed to the cysts of the trichinæ with greater tenacity than to other parts of the tissue. It suffices, then, to examine the sections with a magnification of fifty diameters to distinguish the worm, which will be found in the cyst. If, in following this method, no trichinæ are found, it is assurance that the meat is not infected with them.

American Sugar Production.—

The present Commissioner of Agriculture says, in his late annual report of the Bureau, that a large proportion—possibly one half—of the sugar-cane, beets, sorghum, etc., has been heretofore lost in the processes of manufacture, but that the new discoveries and improvements in that particular have been of exceeding importance. Of the diffusion process recently introduced, and which is applicable to sugar-cane and to sorghum, he says that on the trial upon sorghum of the new machinery in Kansas, under the direction of the bureau, “the degree of the extraction was fully 98 per cent.” In respect to the beet-sugar industry, he says of the new process known as “carbonation,” that it “entirely prevents the losses from scums, and affords a product in every way superior to that given by the old method.”

It would be a great and most opportune benefaction to the agriculture of this country, if the vast amount of sugar which we now import could be produced at home by an extension of the cultivation of the sugar-cane, and by such improvements in the modes of extracting sugar from sorghum and the beet, as seem to have been made. The foreign outlet for our surplus wheat and corn is certainly diminishing, and in respect to wheat, is threatened with being substantially cut off by the competition of other wheat-exporting countries. The substitution of domestic trade for foreign trade, wherever it is practicable, is always to be desired, and this is especially true of sugar,

which is so much a necessity of life that its home production is of the first consequence to our National independence and security.

—*Bankers' Magazine.*

Our Great Cattle Interests.—The magnitude of the cattle interests of the country was strikingly set forth in a statement made by the Commissioner of Agriculture, before the Cattle Growers' Convention at Chicago. Mr. Colman said that a column of cattle, twelve deep, stretching from New York to San Francisco, and back again to Boston, would contain about the number of cattle there are in the United States. The value of this vast herd the Commissioner placed at \$1,200,000,000, and he said that the annual product from these animals exceeded in value four times the yearly earnings of all the railroads of the country. This great source of wealth, he said, was threatened by a very serious danger—contagious disease. The Commissioner declared that there was need of a national law for the slaughtering of diseased cattle, and the stamping out of the disease by extermination. For this purpose, he said, Congress should be asked to appropriate money. The Convention seemed to be strongly in favor of Mr. Coleman's views.

Alaska Gold Mines.—A correspondent of the *Marquette Mining Journal* writes glowing reports about the prospects of Alaska as a gold field. He states that the mill on Douglas Island is turning out bullion at the rate of \$100,000 a month, not counting the concentrates, which are rapidly accumulating for the want of sufficient roasters in the chlorination works. The capacity of the mine must not, however, be judged even by the value of both the bullion and concentrates now turned out; it is large enough to supply rock for half a dozen such mills, and the foundations for a second mill of the same size as the one now in operation are already laying. It is estimated that there are at least twenty million tons of quartz above the tunnel level. Concerning the Silver Bay (Fuller) claims, there is nothing new. In the Silver Bay District there are some very rich mines, and all that has been lacking until now has been a reasonable amount of capital to be honestly and judiciously applied in their development. The success of the Douglas Island venture will, it is thought, assure the erection of

more stamp mills in Alaska during the next five years than were ever in operation in California and Nevada at one time.

Peppermint Culture in the United States.—The United States is the leading producer of peppermint and peppermint oil in the world. It is principally grown in the State of Michigan and in Wayne County, New York. Our production of the oil in 1878 reached as high as 150,000 pounds, but in 1883 the yield was computed at not more than 35,000. The usual annual consumption of the world is about 100,000 pounds, but it is expected there will be a considerable increase, as also in other essential oils, on account of the expectation of cholera. Peppermint is grown to best advantage in good garden soils, but requires an abundance of moisture. An acre will grow plants enough to yield from eight to fifteen pounds of oil, according to the age of the plant and the locality, and the price is from \$3.25 to \$3.75 a pound. There are no large farms entirely devoted to this product, but it is cultivated in small quantities by many farmers. It is used in medicine, confectionery, and for perfumery, and is diluted with alcohol and water to make essence of peppermint. It is also largely used by sanitary engineers for testing joints and traps, a few drops poured in a wash bowl or closet making its presence sensible to smell at any imperfect joints in a pipe leading therefrom, its pungent odor not being apparently at all affected by the sewer gases. Peppermint is to a considerable extent adulterated with castor oil, oil of turpentine, and oil of pennyroyal, but these adulterations can be detected without much difficulty.

Movement of the Washington Monument.—At a meeting of the Washington Monument Society, Col. Casey made some very interesting statements to the members of certain observations of the habits of the monument, by which it appears that the great obelisk is a moving, if not a living thing, and that it has a regular swaying motion when the sun is shining upon it. On every bright day the apex of the monument moves at least one inch westward in the morning when the sun's rays first fall upon it, and eastward again in the afternoon when the sun reaches the western side. The heat of the sun's rays have an expan-

sive effect upon the masonry, and the plummet that is suspended in the interior of the monument registers this movement from day to day.

The Year's Beginning.—Modern Civilization tolerates a good many absurdities, and among them one of the most conspicuous is the conventional New Year's Day. The first day of the first month marks no division of time, or any event in the world's history which would give it much distinction. The winter solstice—that is when the sun appears to reach its greatest declension, or farthest point south of the equator—occurs December 22, nine days before the New Year begins. The summer solstice, another natural division of time, comes on June 22, a point nearly as far removed from the new year as the calendar permits. The natural divisions of time which suggest themselves at once to the practical observer are the winter and summer solstices and the vernal and autumnal equinoxes, periods at which the days and nights have equal length or their greatest difference. These having been neglected, the moon's phases would seem to have been most likely to have been fixed upon. But Imperial Cæsar, who in 46 B. C. gave us our new year, governed by caprice or reasons of the most temporary duration, departed from the former Roman system of reckoning the year from the winter solstice and made the commencement on January 1, for no better reason than the desire to inaugurate his reform with a new moon.

Religion and Hypnotism Discussed.—The New York Academy of Phrenology held its meeting for May at the Hygienic Hotel, New York, a considerable number of persons, ladies and gentlemen, being present. The Rev. Dr. Tucker of Mount Gilead, Ohio, contributed a paper on "The Philosophy of Religion," which was read by the Secretary. "All systems of religion are natural," insists the writer, "in the sense that they have grown out of man's nature, reveal a natural tendency of the human soul, and show in man a natural and universal capacity for worship. The institutions of religion have grown out of man's religious nature, as society has grown out of his social instincts, the family out of his domestic affections, ethics out of his moral intuitions, and science out of the application of reason to the phenomena of nature. *

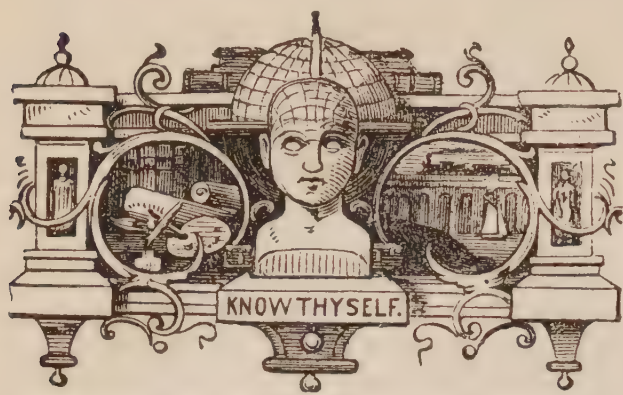
* * The functions of veneration, conscientiousness, spirituality, benevolence and hope in their harmonious development and united exercise are productions of theoretical, experimental and practical religion." Man's strength is revealed thus as well as his weakness, no form of human activity, indeed, has shown more power of thought and feeling than religion. Prof. Tyndall holds that, "religion is a feeling and not a thought; does not belong to the head but to the heart—which is but half the truth, and subject to misinterpretation. There can be no emotion or feeling without intelligence, no rational feeling without thought, no heart without a head, no enthusiasm without reason. The existence and function of the emotions are facts of human consciousness and experience, and history shows that feeling is just as necessary and important as thought."

Dr. M. L. Holbrook read a paper on "The Therapeutics of Hypnotism," in which he reviewed the history of this agent in its application to medical and surgical methods, and cited many incidents to show its importance as a means of beneficence. An interesting discussion followed, in which the President, Dr. Thwing, the Secretary, Prof. Cuthbertson, and others took part. On motion Dr. E. P. Twing, H. S. Drayton, M. D., Edward Beecher, D. D., and Prof. Nelson Sizer, were elected Fellows of the Academy.

D.

How Many the Late War Killed.—It is a sad picture that the record of mortality presents, and it should deter our people from entertaining any ideas of bitter strife or sectional jealousy. According to Gen. Drum the aggregate number of deaths in the Union armies was as many as 359,496. Of these 29,498 occurred among Union soldiers held as prisoners of war. The total number of troops reported as furnished by the various States under the various calls is 2,772,408. Some of the returns were duplicated, and it is estimated that the actual number was about 2,500,000.

Insect Vision.—M. Plateau, the physiologist of Ghent, has been making some experiments to determine whether insects can distinguish objects with their eyes. He concludes that an insect perceives the intensity of light on an object, and also takes note of its movements; but that it is not able to distinguish one object from another by its outward shape.



FOWLER & WELLS COMPANY., *Publishers.*

H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
JUNE, 1886.

THE ARGUMENT FROM ANALOGY.

THE most scientific of scientific men in the past and at the present time have used the argument from analogy in the demonstration of important principles. Pythagoras, Aristotle, Plato, of the ancients, Newton, Des Cartes, Bacon, Cuvier, Darwin, Tyndall, of the moderns, in their application of it have shown its high value in their endeavor to reach truth. Some of our latter day physiologists, however, speak of analogy as misleading and conjectural, and not worthy the respect of the true scientist. They demand facts, and facts alone are to them convincing. Yet we find them disputing with regard to the value and bearing of facts, agreeing upon the occurrence of certain phenomena or data of nature, but differing with reference to their general or specific application. The early phrenologists in their endeavor to give the doctrine of localization abundant support, used with powerful effect the argument from analogy for the purpose mainly to meet the objections of metaphysicians, and in this way they occupied common ground with

those who were their most obstinate opponents. An instance or two let us give of this mode of reasoning; although familiar enough to the reader he will not, we assume, deny their force. When the human brain is compared with that of an animal, say a cat or a dog, we notice at once the great superiority of the human in point of size, and how much more elaborate and complex its structure is. Very careful scrutiny may point to correspondence in the arrangement of certain convolutions, but there are parts and processes in the human that are totally wanting in the dog's brain, and this when compared with the cat's is found to possess elements of superiority in its development over that. The inference is clear that there is a natural correspondence of the size and development of their brains with the extent of intelligence or number of faculties shown by man, dog and cat. To express it in mathematical terms: Let the faculties of the cat be designated by the number 15, those of the dog by 20, and those of man by 40; then we have 15, 20, 40 as their relative intelligence, and the dog is superior to the cat by the possession of 5 additional elements of intelligence, and man is superior to the dog by 20 additional elements. And as the brains show a relative development and increase of parts we have the cat's brain = 15; the dog's brain = 20; the human brain = 40.

However defective may be one's knowledge of the structure of brain in the lower animals, yet if a general comparison be made it will be found that as they ascend in the scale of intelligence there is an increase in size and number of the cerebral parts. Man stands at

the summit of creation by reason not of physical size and muscular strength, but by reason of the elaborate and minute organization of his brain. Man unites in his mind all the faculties indicated by the lower animals, and possesses others that are original and peculiar to himself; and these original faculties give him his immense superiority over the brute creation in power and diversity of intelligence.

THE MOTOR CENTRE CONTROVERSY.

THE "New Phrenologists," as the experimentors and theorists in motor localization are called, do not appear to be as harmonious as their admirers would have people believe. There seems to be indeed more controversy among them with regard to the definite mapping of "centres," and their functions, than there was ever among the "old phrenologists" with regard to the location and function of mental organs. Prof. Ferrier, Dr. Munk, Bennett, and others have asserted, that the different centres of muscular movement could be definitely localized in certain areas of the brain convolutions, and point to their many experiments with the galvanic electrode upon animals, for evidence of their claims. Professors Goltz, Allen, Yeo, and others contend against the possibility of such definite localization, and refer to experiments also for confirmation of their attitude in the matter. Goltz experimented on dogs, and appears to have reached conclusions that satisfied him that the large array of physiologists, that includes Hitzig, Ferrier, Munk, Lucani, etc., was deceived, and that the evidence of experiment is not sufficient for the di-

vision of the brain into motor and sensory areas. He declares that, "no extirpation of the motor-centres, or of any other portion of gray matter, could cause *permanent* paralysis to any muscle in the body." Light, says Professor Ferrier, is situated in the *angular gyrus*. Professor Goltz has destroyed the angular gyrus on both sides, yet his dog sees. Munk claims to have found the centre for sight in the occipital lobe, disagreeing with Ferrier as to its place in the angular gyrus, and explaining the phenomena he has observed after the destruction of the designated area by saying, that "the dog has become *soul-blind*; sensations of light come to his consciousness so that he receives a knowledge of the existence, form and position of external objects, but he does not know what these mean—this knowledge must be learned anew." The same authority places the centre of hearing in the temporo-sphenoidal lobe, agreeing with Ferrier, and the destruction of this centre causes soul-blindness, Munk agrees in principle with the *old* phrenologists, as he attributes psychic qualities to these brains areas.

At the International Medical Congress, which was held in London, in 1881, Professor Goltz appeared with a dog that could see, taste, smell, hear, walk and run, and yet the centres ascribed to these functions had almost entirely been removed. But Professor Ferrier brought in a monkey on which he had experimented, having removed the motor area from the left hemisphere several months before, and the animal appeared to be in good health, with the exception of paralysis of the muscles on the right side, the movements of which

were claimed to relate to the part of the brain that had been destroyed.

If, however, Goltz's dog seemed to bring confusion to the *new* phrenologists by his muscular conduct, his *mental* conduct was favorable to the views of the *old* phrenologists, because he was a very weak-minded animal, quite an imbecile, in fact, in his motions—had lost the meaning and purpose of actions; was wanting, to use the language of Munk, in *soul* consciousness.

The "proof of the pudding" in this matter is to be found in the practical application of the principles derived from observation. In surgery, already, certain results have been obtained that show beyond cavil, that the theory of motor-centres is of great value. In Paris, Berlin, London and New York operations have been made for the removal of diseased parts of the brain, the diagnosis being founded upon certain phases of muscle paralysis, and proving on trial in nearly every case surprisingly accurate. If, for instance, a person be suffering from paralysis of the right arm so that he can not bend it or raise the hand to the mouth, and it be found upon an examination of his brain that a tumor or abscess exists in the middle part of the ascending frontal convolution of the left hemisphere of the brain, the region in which Ferrier and Hitzig place the centre for such movement; and if after proper removal or treatment of such lesion the patient recovers promptly the use of his arm and hand, would it not be reasonable to think that the localization is correct? This is the question that has been answered in the affirmative by the surgical operations of Bennett, Dalton and

others. In this way, too, shall we not reach positive conclusions that will finally silence the demurrers of even a Goltz?

OVER THE LINE.

IN the May number an account is given of an accident that occurred in a country town, whereby some school children lost their lives. These children were pupils of the lady who describes the accident and its sad consequence in pathetic terms. Excited by play and emboldened by their success in skating and sliding upon the frozen surface of a mill pond, several boys venture beyond the limits of safety; the ice gives way and the rapid stream carries them irresistibly down over jagged rocks where their bodies are fearfully torn and bruised before aid can be obtained for their rescue. The boys had been warned not to go beyond a certain point, but repeated trials of the ice led them to go farther and farther in foolish bravado, until suddenly the thin film yielded and they found themselves vainly struggling amid the shattered fragments of ice in the rushing current.

How attractive danger is to the bold and ardent boy—when there seems to be a promise of security, or a safe hold within reach! That thin ice on the deep canal, which bent so gracefully under us as we glided over it, how fascinating it was! although we knew that it might crush in suddenly and some one get a thorough wetting, if he were not drowned.

But not only is it to childhood and youth that danger offers fascinations; in the full maturity of manhood there is too much disposition shown to venture

beyond the boundary of safety. One pretext or another is invented for the rash conduct; to see what is there, whether or not it is *really* dangerous, as they are told; or there is an assumption of indifference to danger—timid people may talk about it but as for us, we are not so easily scared.

We hear of persons performing tricks of balancing or swinging in mid air where the least misstep or slip of the hand would probably be followed by a terrible fall. We read in the newspapers almost daily of injury or death from the careless playing with fire-arms. A man picks up a pistol or gun and *playfully* aims it at a companion, who as *playfully* challenges him to shoot; or holds out a small object and tells him to fire at it. Death or a terrible wound results. "I didn't know it was loaded," or "I didn't mean to," is the sole excuse for such astounding recklessness. Men and women too, of the best culture sometimes attempt to ascend lofty mountains, where only the hardest venture, their only excuse being "I should like to say that I did it." Emulation of such a nature is very common in society, and its outcome is often an exhibition of the silliest bravado.

These things do not appear to be regarded as essentially moral, but rather expressions of the physical side of character, and not to be accounted wicked, although to us they are indissolubly related to a strained and vicious moral sentiment; their effect upon the character can not be otherwise than perverting, rendering the conscience less sensitive, and the judgment less discriminating between degrees of wrong doing. We have little sympathy for that bold-

ness that asserts its ability to mingle with a boisterous throng of profligates where scenes of impurity are displayed, without sustaining any moral damage. "I have seen ministers in my audience, and I guess I can stand it if they can," said the proprietor of a low theatre, comparing himself, a man of notoriously impure life, with those whom society regards as its leaders in the ways of decency and integrity—and not without a reasonable warrant, since he had seen "ministers" gazing upon the parodies of virtue and the gilded blandishments of vice, which constitute the leading "attractions" of his stage.

Theaters are multiplying in our cities, but we do not see any improvement in the moral tone of the plays which draw so many thousands nightly to them. Analyze a popular piece, and what do we find it but a mixture of humorous and silly conceits, with expressions of double meaning often vulgar in the extreme. But people go in crowds to see it, and laugh to excess during the performance, and afterward in the home circle repeat with enthusiasm the follies of the actors, and even point out the immoral meaning of the *double-entendres* with a hearty satisfaction.

Well does society need its evangelists and its missionaries who will not hesitate to confront this tendency of evil—the leaning toward the dangerous—in all classes, and to declare its injurious effects. There are not enough preachers of practical righteousness, men who are not afraid to expose the evil in the conduct of those who encourage directly or indirectly deception and trick in business transactions. Men like John Knox are much wanted who can awaken the

consciences of those who connive at vice, and smile at vulgar and salacious talk, when they should sternly condemn and reprove everything that is tainted with impurity.

SIGNIFICANT.

Our attention has been called to certain signs of the "decadence" of the *old* phrenology after the manner to which allusion was made in an item that appeared in our May number. Rev. Henry Ward Beecher took occasion in a lecture, which he delivered a few months ago in Boston, to make mention of phrenology, and stated that its principles had been of much service to him. In this statement he but joins James Freeman Clarke who has been generous in his allusions to the utility of the doctrines introduced by Gall. A New York editor, well known in the walks of Christian culture, Dr. Lyman Abbott, writes in the *Homiletic Review* of February last: "The most useful system for the classification of mental and moral phenomena is that of phrenology. One may use its nomenclature without accepting its doctrine of craniology. The modern writers have not so far as I know them,

supplanted the original work of Spurzheim." He adds:—"To one who objects, however, to any employment of this system, no book is more useful, as throwing light on mental and moral science, in a practical way, than the two volumes by Dr. Hopkins, 'Outline Study of Man,' and 'The Law of Love.'" We have reason for thinking that Dr. Hopkins is a debtor to phrenology for much of the clearness in his presentation of the principles governing human conduct.

Thus the deeper thought of our day recognizes from one point of view or another the value of the phrenological scheme of mental action. We find its teachings appropriated, or adapted, or absorbed in one way or another by writers who give it little or no recognition. Many perhaps take what they have at second-hand and do not know the original fountain of inspiration. These may deny the *organology* of the brain, yet accepting, as they do, the facts of mental action, whose demonstration was due to that organology, they practically aid in the good work of spreading abroad the light and the truth that phrenology kindled and evolved. The final verdict it is easy to infer.

Our Mentorship Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly

careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

"INDICATIONS OF CHARACTER IN THE HANDWRITING."—E. R. G.—This series of articles has awakened more than passing notice, and may be arranged for publication in a volume next fall or winter. The first article appeared in the July number last year, and was followed by installments that appeared in the September and December numbers. We expect to complete the series in the next volume.

CEREBELLAR ORGANS.—L. B. Z.—The cerebellum lies below the occipital lobes of the cerebrum, and its lobes are separated from the latter by a process of the *dura mater* membrane, called the *tentorium*. The only organ that is allotted to the cerebellum is that of Amativeness. An examination of the chart will show you that the geography of the organs is about as nearly correct as can be shown on a diagram; those figured in the occipital region do not fall below the anatomical margin of the cerebrum.

EXERCISE INCREASES THEM.—W. S. H.—Yes, we can answer your question in the affirmative, as we have answered similar inquiries before. We have known very marked changes to take place in the shape of a person's head from increased use of certain organs. A man, for instance, who has been pursuing the life of a carter or express carrier for years changes it for that of a clerk in an office where he is required to write, make out bills, and cast up accounts; in the

course of ten years a perceptible alteration of the contour of his head, especially in the parts over the eyes and at the temples, will be seen. So, take a young man from the street, where he has been living carelessly and immorally, and bring him into close relations with a methodical, decent, religious life; make him interested in benevolent, reformatory work; in time his head will indicate a development of the organs in the upper part of the brain, and there may result an actual increase in the size of the head.

EATING AND SLEEPING.—A. B. C.—The best authorities differ with regard to the effect of sleeping soon after a full meal, and perhaps it may be sound to refer the subject to habit. Hygienists as a class do not favor the eating of a hearty meal at night, and for people of weak constitution in the majority of cases the results are injurious. We believe, however, that it is better as a rule for people to defer dinner or the principal meal of the day until the hardest work of the day is done. This is best for brain workers especially; but if this hardest work is carried into the night a light supper only should be eaten, and that of nutritious and easily digested food. Human nature seems to differ from the brute nature in this matter of feeding to engorgement and then sleeping immediately afterward; for while it seems perfectly suited to the brute physiology, to man it is usually followed by unpleasant and often serious disorders.

PROPHECIES OF THE WORLD'S END.—M. P.—In spite of the many predictions of dire mishap to our planet it still swings on in its diurnal and annual courses. Mother Shipton and certain of the astrologists are shown to be altogether out of their reckoning. Mother Shipton, with her awe-inspiring foreboding of a crash in 1881, has been shown to be a cunning English impostor. And those fellows who tried to get up a scare by asserting that the conjunction of the principal planets, which occurred in 1884, would inevitably draw the earth out of its proper course and bring on a fearful series of convulsions, epidemics and catastrophes such as had not been known before, have been shown to be traders in credulity. Some account of this prediction of disaster was published twelve years or more ago in the *Science of Health*, and if anything appeared in our columns about it the correspondent may believe that it was from scientific sources,

and in proof of the improbability of any cosmical overthrow.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

Too Much Drinking.—EDITOR P. J.—Reading the answer to a correspondent, entitled “Fluid Drinking,” p. 237, April number of the JOURNAL, I was reminded of a piece of advice I received one day when I was a young man (I am almost an octogenarian now), which I have always regarded as one of the most useful with which I was ever favored. It was in the city of New York and before the days of the Croton water—when we used to get our drinking water from the street pumps, which every one who ever drank it will remember, was very hard and “brackish,” and the more you drank of it on a warm day, the more you were likely to want to drink. I was at the time carrying on the stereotyping business in a building owned by the late Mr. George Bruce, and employed a large number of hands. It was in the summer time, and I got into the habit of guzzling large quantities of water. We used to keep a boy running to the pump with a big pitcher every little while for a fresh supply, and it was drink, drink, drink, continually. One warm afternoon I was in Mr. Bruce's office, and was telling him how much I suffered with thirst, and of how much water I drank to quench it. The old gentleman looked up at me, “Thirst, Mr. R—, you may think it strange, but for thirty years I have never known the feeling of thirst; have never in fact eaten an orange or anything else to quench thirst; and your habit of drinking so much water is both unnecessary and unhealthy, and you had better quit it. Why, sir, for all these thirty years all the liquid that has passed my lips in a day is a single cup of coffee with my breakfast at eight o'clock and a single glass of brandy and water with my dinner at six p.m. That entirely satisfies my thirst and I see no reason why a like quantity of liquid should not be enough for you. Try it, young man, try it.” If he had told me he had not eaten anything at all for thirty years I should have hardly been more astonished.

However, I made up my mind that afternoon to reform and from thenceforth eschewed water, taking only a single cup of coffee with my breakfast, and a cup of “cambric tea” with my afternoon dinner. For several days my throat felt as though it was a nutmeg grater, but after that I had no more trouble and my general health was much better, and I have always felt profoundly grateful to Mr. Bruce for the advice. Perhaps some other young man may be suffering in health to-day from this same bad habit. If there should be and he should read this I hope he will try simplicity and moderation and profit as I did by it.

Burlington, N. J.

J. S. R.

Diligence Insures Success.—

There is nothing perhaps that the world admires more than success. It may be noticed under two aspects: success in life, and success in business or in a single object. All people who make a success of life do not appear to the world to be successful in business, nor do all those that succeed in business make a success of life.

If we would succeed in the main we will have no narrow views of life, but will consider it to be invested with eternal import possessing the possibilities of endless improvement, conditions of such incalculable importance that we see we must succeed or be wrecked on life's turbulent ocean and sink beneath its surging waves to rise no more.

We should have an end in view and that end should be constant improvement and consequent beneficence. This end must be what is known or conceived to be the legitimate result of warrantable means, according to the experience of mankind, and aspired to as being within the sphere of our possibilities. Then singleness of purpose will cause us to concentrate our efforts toward this end. When the efforts are diverted to different objects the agencies that should be unified toward the special end are correspondingly weakened and the effect in all cases is proportionate to the cause.

Together with many other agencies time is an important and powerful factor. It is a gift bestowed upon all living beings. We have only to look around us to see the sad effects of its abuse. What blessings it would have conferred upon thousands who are now in “The Slough of Despond,” if they

had appreciated its value and given heed to its admonitions! Cæsar remarked, "It is not time that is wanting with men so much as the resolution to turn it to the best advantage." Time affects the world's history. It is true wisdom to know when our opportunities come and to seize the golden moments as they fly. "There is a tide in the affairs of men, which taken at the flood leads on to fortune."

Diligence in the use of means implies waiting also; for in all departments of effort chances fluctuate, and there are times of apparent adversity, when those who do not have the strongest faith would be deprived of hope. In order to succeed we must apply ourselves during these December blasts the same as when the sun shines bright and clear, having a strong faith in the use of the means, and being inspired to a proper estimate of the end to be accomplished. The faithful servants were commended, not for their alternately impulsive and relaxing efforts, but, for being faithful. I consider the meaning of this word to be *never fail*. Paul, the heroic preacher among his warm hearted brethren, was Paul the hero in chains at Rome. Early in life Columbus conceived the idea of a northeast passage to India; he repeatedly met the refusal and scoffs of the different courts, but he had such strong faith in his enterprise that he constantly applied himself to the use of any means at his command, until he was about sixty years of age, when he accomplished more than he had ever conceived.

Demosthenes had a natural impediment in his speech; he conceived the idea of being an orator, and to accomplish this end he placed small pebbles from the brook under his tongue to facilitate his speech, and thus accomplished a free and easy delivery. He transcribed the history of Thucydides eight times that he might acquire the strength and vividness of that great author, and finally he made the senate-halls of Greece reverberate with his impassioned eloquence. Henry Wilson who rose from poverty and obscurity to be one of the most prominent men in American public affairs is a late example of the results of steady industry and firm resolve.

The essentials of success are a wisely chosen pursuit, singleness of purpose, diligence in the use of means, concentration of effort, and then, it is believed that all the accidents

of time may be turned to good account.

D. N. CURTIS.

PERSONAL.

EMPEROR WILLIAM, of Germany, now in his ninetieth year, has witnessed many changes during his long life. When a boy during the wars of Napoleon his royal parents were driven from home, and became so poor that they could not afford to buy costly flowers. He saw the army of Prussia scattered like chaff, the state dismembered, and Berlin in the hands of Napoleon. He witnessed the dissolution of the old German Empire, which began more than a thousand years before with Charles the Great, otherwise Charlemagne. He has witnessed the unification of Germany under his own sceptre, and personally led a mighty army to marvellous successes. He is extraordinarily happy in all his personal and family relations, although the Empress is not particularly popular. He is generous with what he himself has, which is not exceptionally much. For some reason this remarkable man has never excited much personal interest in this country, where his chancellor, Bismarck, is far better known. And yet he has done as much for the cause of freedom and progress as any potentate of our time, and of all reigning princes he is one of the purest, and least selfish. If there must be kings and emperors, it would be well to have them as brave and hard working as the Emperor William.

CARDINAL MANNING is described by a religious paper as "the very dream of emaciation physically, and of zeal mentally. His face is more than gaunt; it is spectral in its thinness. The ridge of cheek-bone from ear to ear stands out like a finger laid upon flesh. The hollows about the drawn, thin-lipped mouth are cavernous. The deep, wierd eyes look out from caverns. The upper forehead bulges as if it would force apart the tight-stretched skin. It is a face which the painter would seek for utmost impressiveness of effect in a death-bed scene. Yet this wonderful old man is the hardest working clergyman, publicist and administrator in Great Britain. He reads, writes, thinks, collects statistics, audits accounts, studies current utterances, schemes out lines of action, organizes societies, prepares articles, preaches sermons, superintends publications, watches politics, addresses social and temperance meetings, receives hosts of visi-

tors, personally distributes great charities—in a word, is the most terribly active man of his generation.”

THE oldest person in France, perhaps in the world, is a woman who lives in the village of Auberive, in Royans. She was born March 16th, 1761, and is therefore 125 years old. The authentic record of her birth is to be found in the Parish register of St. Just de Claix in the Department of the Isere. She had one son, who died in 1810, being then 33 years old. Her maiden name was Marie Durand, and she was married when a mere child. Her husband died, and she took a second, his name being Girard. They lived at Auberive until 1814, when the Austrian army invaded the Isere country. Then she dressed in man's clothes, and with her husband fled to the sea, and were fellow sailors on shipboard for seven years without her disguise being discovered. Her husband was killed in a brawl, and she slew his murderer, and then returned to Auberive to spend her remaining years in widowhood. She lives in a miserable hut, alone, and has been able to attend to all her wants herself until within two or three years.

WISDOM.

“Think truly, and thy thought
Shall be a fruitful seed.”

Purity is the feminine, truth the masculine of honor.—*Hare*.

It is the prerogative of God alone to truly comprehend all things.—*Cervantes*.

Knowledge, while it usually removes conceit and other vices, produces them in the fool; as the light of day which, in all ordinary cases, wakes the power of vision, makes the owl blind.—*Hindu (Punchatantra)*.

A great man is he indeed whose heart is large but with no room in it to hold the memory of a wrong.

The working of the good and brave, seen or unseen, endures literally forever, and can not die.—*Carlyle*.

MIRTH.

“A little nonsense now and then,
Is relished by the wisest men.”

A liquor seller presented his bill to the executor of a deceased customer's estate, asking: “Do you wish my bill sworn to?” “No,” said the executor; “the death of the

deceased is sufficient evidence that he had the liquor.”

“Say!” yelled the boy, as the doctor was driving past, “lets salve the best thing you've got for a cut.” And the doctor gave him one with his whip.

“Now, Johnny, you go to bed early, and always do so, and you'll be rosy-cheeked and handsome when you grow up.” Johnny thought a few minutes and then said: “Well, aunty, you must have sat up a good deal when you were young.”

In the published report of a benevolent society occurs this: “Notwithstanding the large amount paid for medicine and medical attendance, very few deaths occurred during the year.”



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

BUGLE ECHOES. A collection of Poems of the Civil War, Northern and Southern. Edited by FRANCIS F. BROWNE, 12mo. pp. 336. Cloth, gilt, \$2. New York: White, Stokes & Allen.

Now at a distance of twenty years from the war, we have a volume that associates, if it does not harmonize or unify the better types of war lyrics and measures that were inspired in Northern and Southern minds. The late accomplished philologist, Mr. Grant White, brought out a collection of Civil War poetry many years ago, which we prize, but his recollections were chiefly illustrations of the patriotism or loyalty of one side. Mr. Browne has been at much pains to seek for the meritorious in point of thought and diction on the side of the “gray,” as well as on the side of the “blue” and has compiled a really notable book. He who reads it with the disinterestedness of no personal bias toward either side, if that were possible, and merely to ascertain its

poetic flavor, will find many pieces of more than average excellence as poetry. If we should say that we find the names of Henry Timrod, R. H. Stoddard, Bret Harte, Edna D. Proctor, Bayard Taylor, J. R. Lowell, Thos. Buchanan Read, Longfellow, Whittier, Bryant, E. C. Stedman, Phoebe Cary, Thos. Dunn English, Paul H. Hayne and Sidney Lanier represented by verses that are creditable to their reputation, the reader needs no further assurance of the general quality of the selection, and if he would have in his literary a refined, deep, breathing memory of a great struggle of principles, without those coarse suggestions of brutal strife that mere battle history brings to mind, he will find this daintily bound volume appropriate.

THE NEW CHURCH: Its Ministry, Laity, and Ordinances. By JOHN ELLIS, M. D.

In this new pamphlet by a vigorous thinker and writer we have his views on the character and functions of ministers to the New Jerusalem church. He shows very clearly, we think, that the pastor or clergyman should be an example and leader, not a mere perfunctory executant of certain forms and duties believed to belong to his place. He should also be a representative suitably authorized by the ceremony of ordination, the people of his congregation laying their hands upon him for that purpose, instead of having ministers of other parishes lay their hands upon him. Other views are given concerning church management that show Dr. Ellis to be much of the democrat in religious opinion. An "Appendix" is devoted to the discussion of Communion wine, and the use of intoxicating beverages by church-going people. Here Dr. Ellis displays his old temperance earnestness and strong desire that the ceremonies of religion shall not in any way furnish an excuse or plea for drinking wine.

Published by the author—New York.

PUBLICATIONS RECEIVED.

HOG-RAISING AND PORK-MAKING. By Rufus Bacon Martin: Illustrated. For those who like pork sufficiently to go into its "manufacture," Mr. Martin has written an acceptable book, no doubt. Without indulging a strong inclination to denounce the use of hog flesh as food whenever it is mentioned, we would mention that the price of this pamphlet is 40 cents, and the O. Judd Company, New York, sells it.

CAPE COD CRANBERRIES. By James Webb: Illustrated. Is a small pamphlet that covers a good deal in the special domain of its discussion. We are surprised by the extent to which cranberry cultivation may be carried in New England, and by the possibilities of profit which it affords to the enterprising. The book is written by one who knows what the cranberry is, and he tells us what we should wish to know were we to entertain the idea of going into cranberry culture.

Price 40 cents. O. Judd Co., New York.

IN THE HOMILETIC REVIEW for May the leading article is on "The Present Status of the Darwinian Theory of Evolution," by Sir William Dawson, of McGill College. Among the other contributors are Dr. T. W. Chambers, Dr. Stuckenberg, of Berlin, and Mr. Beecher. Funk & Wagnalls, New York.

HOW TO PLANT AND WHAT TO DO WITH THE CROPS, with valuable hints for the farm, garden and orchard. By Mark W. Johnson, illustrated. This is a convenient little bound book for the use of the farmer and gardener, without being voluminous it furnishes many hints of practical value to practical men. Among the topics are: Time for sowing seeds; covering seeds; field crops; sweet herbs, etc.; tree seeds; flower seeds; distances apart for fruit trees and shrubs; green or manuring crops; root crops; forage plants; what to do with the crops; varieties; bird seeds; standard garden seeds; standard field seeds. Price, paper, 50 cents. O. Judd Co., New York.

PRELIMINARY LESSONS IN METAPHYSICS; or The Science of Christian Healing. By Emil M. Kirchgessner. Price 25 cents. Published by the author, Boston, Mass. "Mind being the cause of all things," according to the author, "it is manifestly the cause of all spiritual and physical activity. It is our real being, our only life and vital action." Hence, "disease is only in the mind," and we have but to regulate or adjust the mind in a matter antagonistic to sickness and disease to overcome the ills of the flesh and be well. This appears to be the central idea in the "mental cure."

CURRENT EXCHANGES RECEIVED.

The Sunday-school Times: Now in its 28th volume, and as representative as ever of its department of Christian enterprise. Philadelphia.

The National Temperance Advocate, New York: The leading organ of the temper-

ance cause in this country and a epitome of activity throughout the country.

Scottish-American Journal. New York: As ever abounding in reminiscences of the "land o' cakes," and welcome to every Scotsman or son of a Scotsman.

The Medical Summary. R. K. Andrews, M.D., Philadelphia: Devoted to practical medicine and new preparations. We wish that there were fewer of these new preparations hawked about.

The Christian Secretary, Hartford Conn.: Plain, practical and useful.

Religio-Philosophical Journal, Chicago: Both its religious and philosophical phases are chiefly marked by the phenomena of spiritism.

Literary World, Boston: Gives readings from new books and short reviews.

The Spectator, Boston: Relates to Political Science, Literature and Art, and the current questions relating to them.

The Cultivator and Country Gentleman: The old reliable organ of American Agriculture.

Le Progrès Medical: Bourneville, editor, Paris: Presents the latest facts in medical experience and surgical results.

Book News, Philadelphia: Sketches of recent books and comments on authors and what is doing in literature generally.

Planters' Journal: Organ of the National Cotton Planters' Association, Vicksburg, Mississippi. A promising development of Southern agriculture.

Building, New York: This representative of Architectural Industry shows care and intelligence in every number.

Power and Steam, Boston: Discusses Mechanical and Industrial affairs, with well-drawn illustrations of new devices.

The Current Weekly, Chicago: A miscellany of stories and sketches of all sorts.

The Alpha, Washington, D. C.: This bold advocate of purity and reform in domestic life should have a wide circulation. The human side of man is well presented in contrast to the brute.

The Telephone: A gossippy weekly that doubtless pleases many readers. Phila.

The Episcopal Recorder, Philadelphia: Organ of the Reformed Episcopal Church and fairly abreast in thought with its contemporaries of the old denominations.

Western Rural and American Stockman, Chicago: Independent, energetic, and leading in the Granger interest.

The Medical Advocate, Drs. House and Wilder editors: Appears to be gaining ground in its position on the independent side of medicine; worthy of support by earnest practitioners.

North Carolina University Magazine, Chapel Hill, N. C.: A creditable, literary example of college boys' work.

Home Guardian, Boston: always true to its field, the home; its principles the purest.

Illustrated Catholic American, New York: Interesting, well managed.

THE INSTITUTE COURSE FOR 1886.

A man of no little experience in the world and a practical mechanic as well as successful merchant, told us lately that many business men boast that they are never mistaken in a man, but nevertheless the fact is conspicuous that mistakes are constantly made in large establishments by wrongly giving credit, and by putting "round men in square holes," with results that are both annoying and expensive," and he believes that a knowledge of character as furnished by the study of phrenology, would avoid most of the disagreeable "misfits," and help men into their true places. This is true enough, and there is more to be said, viz., that a knowledge of phrenological principles will help a man who is not in just the sort of place that would suit his measure, but who can not easily make a change, to direct and apply his abilities so that he can get more out of his work than before, and in time effect a better adjustment.

The scope of the American Institute of

Phrenology is a broad one—aiming to instruct its students in the scientific principles of character study from all points of view, and furnishing many incidental aids to self development. While those who have decided to take up Phrenology as a calling will receive from its curriculum the essential instruction and practice needed for their work, men and women with other purposes, and coming from other spheres, will find themselves furnished with new helps and new motives so that success can be more easily achieved. We ask all who think of looking into this subject to read the last circular of the Institute.

The next session will commence on the first Tuesday in September, and continue eight weeks. Full information with reference to the plan of study and the lectures of the course is supplied in the circular, which may be obtained by addressing the Secretary, or the Fowler & Wells Co., 753 Broadway, New York.

THE
PHRENOLOGICAL JOURNAL
AND
SCIENCE OF HEALTH.

A REPOSITORY OF
SCIENCE, LITERATURE AND GENERAL INTELLIGENCE.

DEVOTED TO
ETHNOLOGY, PHYSIOLOGY, PHRENOLOGY, PHYSIOGNOMY, SOCIOLOGY, PSYCHOLOGY, EDUCATION, MECHANICAL INDUSTRY, HYGIENE, AND TO ALL THOSE PROGRESSIVE MEASURES WHICH ARE CALCULATED TO REFORM, ELEVATE, AND IMPROVE MANKIND, SPIRITUALLY, INTELLECTUALLY AND SOCIALLY.

Embellished with Numerous Portraits and other Engravings.

VOL. LXXXII. OLD SERIES—VOL. XXXIII. NEW SERIES.
JULY TO DECEMBER, 1886.

H. S. DRAYTON, A.M., M.D., EDITOR.

NEW YORK:
FOWLER & WELLS CO., PUBLISHERS, 753 BROADWAY.
1886.



“Quiconque a une trop haute idée de la force et de la justesse de ses raisonnemens pour se croire obligé de les soumettre a une expérience mille et mille fois répétée ne perfectionner jamais la physiologie du cerveau.”—GALL.

“I regard Phrenology as the only system of mental philosophy which can be said to indicate with anything like clearness and precision, man’s mixed moral and intellectual nature, and as the only guide short of revelation for educating him in harmony with his faculties, as a being of power ; with his wants, as a creature of necessity ; and with his duties, as an agent responsible to his Maker and amendable to the laws declared by the all-wise Providence.”—JOHN BELL, M. D.

“To Phrenology may be justly conceded the grand merit of having forced the inductive method of inquiry into mental philosophy, and thus laid the permanent foundations of a true mental science.”—*Encyclopædia Britannica*, 8th Edition.

CONTENTS—JULY TO DECEMBER, 1886.

	PAGE
Asthma, Nature, Causes and Treatment.....	39
Automatic Machinery.....	43
Anthropological School, The French.....	47
Amativeness in Women.....	97
Aluminum.....	159
Adulteration in Wine Making.....	161
Atom, Size of an.....	162
Aristocracy in America.....	199
"As ye sow, so shall ye reap".....	216
Ancient Pharaohs, Two.....	247
Animals, Faculty in.....	251
Aunt Ruth's Triumph.....	278
Anthropometry, A Chapter on.....	286
Apples, Winter Storage of.....	315

B	
Burns and Scalds.....	95
Breathing Function, The	98
Brain Centers for Touch and Muscular Sense.....	102
Brooklyn Bridge, Travel on the.....	103
Birds, the Farmers' Friends..	104
Bread Without Yeast.....	111
Bussell, Grace Vernon—Poem, illustrated.....	145
Baldness or Alopecia.....	147
Biliousness, What Is It?.....	154
Boys Who Smoke.....	157
Bitters and Digestion.....	157
Bicycle, Danger in the.....	158
Brain in Men and Women....	168
Baking Powders.....	101, 279
Brooks, Phillips—Portrait....	173
Boadicea.....	185
Born—Graduated—Died.....	213
Barbados.....	218
Body Growth.....	225
Bouquets, Preservation of....	273
Bier for Sleep.....	277
Beautiful Things—Poem.....	304
Bacteria in Air We Breathe.	312

Conjugal in Every-day Work, The.....	15
Cattle Bones, Uses of.....	48
Criminal Instance. A.....	49
Christian Church, Its History, etc.....	80
Curability of Consumption...	96
Crisis in Great Britain, The...	106
Catarrhal Troubles.....	110
Chlovis and Charlemagne....	131
Chamberlain, Jos.—Portrait..	120
Cooking Water.....	156
Curious Intergrafting.....	162
Color, Function of.....	168
Civilization, An Outside View of.....	163
Common Fame—Poem.....	186
Croup.....	209, 332
Courage, A Woman's.....	260
Chorea.....	262
Cellars, How to Keep Cool....	271
Cow, a Good.....	272
Charleston.....	276
Colonial Races, Development of.....	312
Correspondents, To Several..	332

D	
	PAGE
Dublin, Ireland.....	22
Don't Check Perspiration Suddenl.....	45
Diet of the Sedentary.....	55, 109
Decline of Population in Massachusetts.....	78, 245
Down with the Pistol.....	108
Discoverer of California's Gold, The—Portrait.....	128
Development of Body in Childhood.....	160
Drinking Water.....	168
Drinking Habits in Germany.....	219
Difficulties.....	226
Dreams.....	277
Drinking in Germany.....	313
Diphtheria.....	319

Emotional Effect, An.....	45
European Tunnel, Another..	47
Extinction of Kilouea.....	102
Esquimaux Diet.....	154
Earth Closets. Use of.....	264

F

Familiar Talks with Our Young	
Readers, 11, 66, 126, 180, 233, 287	
Floral Gossip, Some.....	28
Famous Woman Farmer, A... 48	
Food, Cost of Necessary.....	158
Freckles.....	168
Fatness, to Reduce.....	211
Faith and Hope, Medicinal... 245	
Full of Grit.....	257
Flies and Poor Ventilation... 268	
Fruit in Florida.....	308
Fresh Homeric Revelations, 311	
Food For Cold Weather.....	324

G	
Germ of Malarial Fever, The..	41
Good Templars, The.....	52
Gladstone, Hon. Wm. E.—Por- trait.....	115
Gentle Master, The—Poem....	126
Good-natured Nursing.....	143
God in Phrenology.....	167
Greenaway, Kate.....	187
Gather Up the Fragments....	188
Great Eastern, The.....	273
Great Day, A.....	302
German Naturalists and Phys- icians, Meeting of.....	311

H

Hypnotism a Curative Agt, 93,	226
Hygienic Bill of Fare.....	101
How an Iron Process was Stolen.....	104
Hives.....	110
Hartington, Marquis of—Por- trait.....	118
Hicks-Beach, Sir Michael— Portrait.....	121
H'dwriting. Character in, 124,	242
Home Reforms.....	141
How She Fixed Up Her Room,	142
Horse, Brain Power in.....	193
Horses' Hoof—Improved.....	193
Hay Fever.....	212
Home Culture vs. Home Work	312

PAGE

Hair and Character.....	313
Hynotism Discussed by the Anthropologists.....	326
Handwriting.....	331

I	
Instinct, What Is?.....	189
Industry, A Novel.....	272
Infection, Period of.....	321
Individual Reform Society, An.....	
In Friendship's Bonds—Poem.....	34
Idealism in Public Disorder...	50
Influence of Pictures.....	55
Insanity, Bearing of Physi- ology on.....	71
Iron That Will Not Rust.....	109

K

Kindness to Children (see C).. 29

L	
Lamp as a Modern Development, The.....	47
Localization, Marshall Hall on.....	51
Library... 57, 113, 171, 227, 281, 333	
Lady of the White House, The, 61	
Life—Poem, 2 illustrations...	75
Ludwig of Bavaria.....	76
Latent Faculties.....	105
Let the Women Set Type.....	107
Locality & Derivative.....	109
Labor Troubles, A Thought on, 221	
Labor Question, On the.....	224
Labor and Capital—Poem....	256
Liquids, Save the.....	272
Light and Shadow, Blending of—Poem.....	316

M	
Mecca, Pilgrimages to.....	25
Mexican Pearl Fishery.....	48
Mirth.....	57, 112, 227, 280, 333
Mental Impressions and Dis- ease	111
Money.....	202
Moral Culture.....	203
Morse, Edward S.—Portrait..	229
Medicine of the Future, The..	267
Mind and Disease.....	277
Mortmain.....	317
Medical Works.....	331
Mushrooms.....	331

N	
National Museum of Hygiene, A.....	37
Newly Wedded, To the—Poem	63
Notes in Science and Indus- try.....	46, 102, 159, 217, 271,
Nature and the Heart—Poem,	206
Newsboy, The.....	204
Nathan Brown, Singular Case of.....	316

O

Our Mentorial Bureau. 53, 109, 167,
224, 276, 381
"Obsession"..... 54

PAGE	PAGE	PAGE
Oatmeal Mush, Good..... 101	Religions, Growth of..... 219	Thoughtful and Positive Men, 236
Orthodox Christianity, and the Religion of Jesus..... 123	Rubber Cloth, To Mend..... 219	Touch, Sense of..... 231
Old Plates, Vibrations in..... 130	Reform-School Reforms..... 277	Temperance vs. Temperance.. 267
Old Egyptian Studio, An..... 161	Red Cloud—Portrait..... 233	Telegraphy, An Old Invention, 271
Overdone and Underdone Veg- etation..... 205	Religion, Philosophy in..... 305	Think of It!..... 273
Our Faith—Poem..... 236	S	To Be Well—Keep Well..... 330
Orthodoxy, Decadence of..... 293	Sleep Habits of Children..... 44	Temperament in Magnetism.. 332
P	Solar Cyclone, A..... 46	U
Progressive Faculties, The.... 16	Salutes, Origin of..... 54	Unnatural Appetite..... 111
Phrenology in England..... 20	Strange Adventure, A..... 87, 149	V
Phrenology in Business, The Use of..... 26	Smallpox, To Avoid Conta- gion in..... 100	Varicocele..... 168
People of an Old Massachu- setts Town..... 30	Steel Under the Microscope.. 102	Visions, What They Mean.... 168
Pioneering—Poem..... 36	Store Parcel-carrier, A..... 103	Vital Tenacity..... 273
Personal..... 56, 112, 170, 279, 333	Society for Maiden Ladies, A, 146	W
Pronunciation, A Lesson in... 161	Science of the Mind, The— Poem..... 146	When the Ship Comes In— Poem..... 15
Psychical Phenomena, Inves- tigation of..... 162	Salt in Cholera..... 156	Whose Fault?..... 35
Phrenology, Practical Use of, 183	Seeing the Invisible..... 160	Way of the Transgressor, The. 42
Party Walls, Law of..... 218	Self-control, Self-esteem, Which?..... 169	Weather Rhymes..... 43
Phrenology and Its Critics.... 224	Scientific Spirit, The..... 217	Will, Nature of the..... 54
Phrenology, George Eliot and, 232	Scientific Candor..... 220	What They Say.. 55, 111, 168, 226, 277, 332
Politeness, Indian..... 230	Spell on Her, A..... 225	Wisdom..... 57, 112, 227, 230, 333
Press and Public Health, The, 265	Sociology, Modern..... 253	Williams, Roger..... 64
Phrenology, Value of..... 269	Seeing in the Dark..... 271	Women's Dress, Language of. 70
Penal Colony, Our..... 275	Suicide and Insanity..... 274-75	Why I Did Not Let In the Cat. 85
Pain of Flatulence..... 277	Statistics of Blindness..... 272	Whence Was It?..... 86
Plasters and Salves..... 326	Selkirk's Colony..... 306	Wet Sheet Pack, A..... 100
Phrenology, Double Work of.. 329	Sunflowers for Fuel..... 311	Wonderful Fruits, etc..... 103
Q	Science, Progress of..... 312	Wonders of Science, The.... 140
Quartz, A Phenomenon in.... 219	Success and Success..... 327	Wounds, Dressing of..... 148
R	Size of the Organs..... 332	Web of Life, The—Poem..... 179
Richards, Prof. James B.—Por- trait..... 5	T	Wanted to Swear..... 207
Recompense—Poem..... 81	Typhoid Fever, Water Treat- ment in..... 43	Worthy Man, A..... 249
Rainfall and Fires..... 218	Taste, Sense of..... 44	What All Must Be—Poem—Ill. 296
	Tongue Symptoms..... 92	Why She Died..... 322
	Temperance Mince Pies..... 101	Winter Churning..... 315
	They Should be Kept Down... 222	Y
	Temperament in Marriage... 225	Y. M. C. A., Indictments of.. 165

ILLUSTRATIONS.

PAGE	PAGE	PAGE
A	N	Nervous Temperament—Horse. 194
Ayer, Elizabeth Taylor..... 31	Greenaway, Kate..... 187	O
Alfonso, of Spain..... 66	Gray, Senator..... 234	Organs of the Head—Diagram of..... 127
Australian Coast..... 145	H	P
B	Hartington, Marquis of... 118	Pompous Footman, The..... 233
Butler, Rev. J. G..... 69	Hicks-Beach, Sir Michael.... 121	R
Brooks, Phillips..... 173	Hope, Large..... 235	Richards, Prof. James B..... 5
Benevolence, Small..... 288	"Hurrah, A Sail, A Sail!"... 235	Rameses II..... 247
Boulanger, Gen'l..... 292	I	Red Cloud, Chief of the Dako- tas..... 283
C	Indications of Character in Handwriting—24 Illus..... 134	S
Custom House, Dublin..... 23	"I Can Ride Horse, Too".... 289	Smashed Tile, The..... 12
Cleveland, Mrs. Frances..... 61	J	St. Patrick's Cathedral, Dub- lin..... 24
Cheerful Word, A..... 68	Jefferson, Thomas..... 181	Sculptors at Work, The..... 67
Chamberlain, Joseph..... 121	Judge, The..... 182	Springer, Mr..... 235
Conscientiousness, Small.... 128	L	Self esteem—Large..... 234
Corse, John M..... 288	Life—Poem—2 Illus..... 75	Seti I..... 247
D	Ludwig, of Bavaria..... 76	T
Danish Minister, The..... 10	"La, Charles, See How He Mimics Us!"..... 298	Thursby, Miss..... 13
Dougall, The Late John..... 250	M	Trinity College, Dublin..... 25
"Do You Want a Clerk, Sir?" 291	Marshall, John W..... 139	V
F	Motive—Vital Temperament —Horse..... 197	Vest, Senator..... 180
Form Large, Miss B——..... 69	Morse, Edward S..... 239	W
G	Mummy of Rameses II..... 247	Wilful Boy..... 183
Glee Club, Our Home..... 14	Mummy of Seti I..... 248	What All Must Be..... 286
Germes of Malarial Fever—4 Il. 41	Marquis of Londonderry..... 290	
Gladstone, Hon. Wm. E..... 115		
Goode, John..... 128		
"Hey, Dropped Your Pocket- book Mister!"..... 129		

THE

PHRENOLOGICAL JOURNAL

AND

LIFE ILLUSTRATED.

VOL. 82. 1886.

NUMBER 6.]

July, 1886.

[WHOLE No. 571.]



PROFESSOR JAMES B. RICHARDS, M. A.

THE most of the work which we do of this sort for the JOURNAL, is done in respect to persons who are chiefly or entirely strangers to us ; but in this case, we study the face and head of a friend with whom we had been intimate for more than thirty-five years, and whom we had learned to love, respect, and

admire, as one of the cleanest, truest and best of men.

As we study that massive brow, that large Benevolence, and that strong, logical forehead ; as we study the development of the esthetical in that broadly expanded region of the temples ; as we meditate on the tender conscience, and

the sensitive feeling that craved approval, and avoided offence to others ; as we consider the breadth of head above and about the ears which gave him power and unflinching tendency to work to the very end ; as we study the Order which formed so signal a feature in his character ; as we notice the ample development of perception and reflection, and the indications of clearness and simplicity of statement, we see a revelation of the peculiar facts, which, we have been informed, lay at the very incipency of his organism, of his pre-natal and subsequent culture.

His father and mother, endowed with the spirit of mission work, of suffering, and sacrifice, of labor and care and self-denial in behalf of the ignorant and the weak, had gone as missionaries in the early time of missions to the Island of Ceylon, and while, lovingly towards each other, they had united their faith and their work to study the habits, the language, and the institutions of the people for whom they had left their native land to become teachers, with thought alert to gain knowledge, and with a spirit mellow with benign sympathy to confer favor on the strangers, the history of James B. Richards began. The parents were intent on learning and teaching ; were stooping to the ignorant and the low that they might impart their own best thought in the simplest way, and also learn the thought and knowledge pertaining to the strangers. Being in such a teachable spirit, how could the parents be in better condition to transfer to a future son the tenderness and the delicacy, the humility and the philanthropy, the courage and the patient endurance needful for the true teacher, qualities that were possessed by James B. Richards in a larger measure than perhaps have ever been incorporated before in a single human being.

As an illustration of it in such an organization, and of its capacity, we may say that he taught the lowest idiots that ever were reached by human endeavor,

to read and think. He was connected with a public institution in Boston, in connection with Dr. Howe, and feeble-minded children constituted a department in that establishment, and James B. Richards was the tutor.

For years he taught such a school in New York. We visited that school and watched his work, we have listened to his lectures on the subject of abnormal mentality and imbecility, in the American Institute of Phrenology, for many years past, and we were taught this, that it is comparatively easy for masterly intelligence to instruct corresponding talent in pupils, but for intelligence to comprehend the dim spark of talent in those that are mentally weak and unfortunate, and fan it into a flame, and instruct and elevate it is indeed the masterly side of teaching. It is understood to be a comparatively easy thing for a man of talent to preach a strong and manly discourse to strong thinkers ; but it takes superior talent to preach to children so that they shall understand and be up-lifted, and learn to follow and love the teacher. It takes a great mind, or we may say, a fortunate one, to make an important subject simple and familiar to childhood ; and it takes a similar talent, though perhaps of a more intense order, to step below the ordinary intelligence of childhood and teach the idiot.

The portrait before us shows a massive brain in the upper front region, indicating large perceptive and very large reflective organs, while the temples and side head indicate ingenuity, resource, power of invention, and ability for manipulation ; and he would take these ingenuities, and philosophies, and powers of induction and investigation, and find the little that a person might have of power to be improved ; and as the weak-minded have no general character, each being a character of himself, the teacher has to find out in what respect the pupil is weak, where his weakness is, and where his possible strength may be ; and it is a matter of genius to find out these

pent up channels of power and develop them. The man who has the talent to teach twenty idiots, or weak-minded persons, whose lines of weakness or strength may differ each from all the others, requires more talent than to go into a common school, where a high grade of intelligence is possessed by each pupil, and do superior work there.

The fine quality of the organization was always a notable fact in his case. The musical pathos of his voice, the delicate susceptibility indicated by the line of thought and method of treating subjects and persons, were marked traits with him. He had Agreeableness strongly marked, he had the knowledge of human character well developed, and then he had a world of courage and force, which gave him power to undertake and achieve that which required manly dignity and positiveness and power.

His affections were strong, his moral tone high, and his disposition to live for others was perhaps the most marked trait of his life and character, and is readily referable to the circumstances of his parents before his birth, and the atmosphere in which his early youth was nurtured.

In his death, the world has lost one of the rarest men we have ever known. His peer and parallel can not be found. Among strong, logical, moral men, that required bravery, stanchness, strength, and persistency of moral purpose, he was the peer of the best. In the realm of tenderness and pity, where loving patience and unwearied assiduity were required to meet and master the weaknesses of the weakest, he was gentleness and goodness itself.

NELSON SIZER.

From an appreciative sketch of Mr. Richards, written by one who knew him well, the Rev. T. C. Williams, and published in the *Christian Register*, the following retrospect of this nobly useful life has been taken.

James B. Richards was born in Cey-

lon, in 1817. Less than ten years before, under a certain haystack in Williamsstown, Mass., five men met together, and prayed for the conversion of the whole earth to Jesus Christ. It was the first meeting of the American Board of Foreign Missions. It takes imagination to realize at this day the sublime faith and courage of such an enterprise in Christian chivalry. There were no heathen at home then, no corrupt cities, no godless villages, no social horrors in the New England of 1810. The Foreign Missions attracted many adventurous and romantic spirits. It was the crusade of the Massachusetts Church.

These young men, however, you judge their theology, were knights of a new order, in which their bold Pilgrim blood was taking a new-discovered channel. One of these five, proving his faith by works, enlisted for Ceylon, then a ten months' voyage from Boston. Doubtless, the heathen was profited by acquaintance with such a man, though what he accomplished I do not know; for he died there while still young, and left behind him an infant son, the subject of this sketch. The boy's mother married a second time. Not long after the little fellow (bringing with him a writing-book neatly engrossed with queer Tamil script) came home to America, to be educated; and his mother never saw him again.

His boyhood was passed in Plainfield, Mass., with the wholesome education of the country village and country school. There were some hardships to an affectionate nature like his in the house of a sternly pious uncle, who, perhaps, was more concerned for salvation in another world than for such joy and kindness as were obtainable in Plainfield. But to these hardships he seldom referred. When the short boyhood was over the young man came to Boston as a teacher, and soon obtained a position in Chauncy Hall School. Time now showed that this was no common hearer of lessons. His aptitude for teaching was no less than genius. The duller the pupil, the greater

his joy and patience. In that day, when the rod and spelling-book reigned everywhere, even in Boston schools, Mr. Richards was ever fresh and tireless in invention. He made it a sacred calling, and felt it a divine and holy art to open a young mind to truth. And only those who within the last few months have seen his face glow and heard his voice deepen and thrill, as he spoke of this subject, can imagine what must have been his power then, in that first bloom and vigor of his youth. The student of heredity thinks of that missionary father, with his dusky scholars. Teaching was in the blood.

About that time, Dr. S. G. Howe was projecting his institution in South Boston for imbecile children (commonly known as idiots). He explained his plans and hopes to Horace Mann, and asked where he should find the teacher for such an experiment. "I know but one person," said Mann, "who should even attempt it." Young Richards was appealed to; and, in a single interview the matter was settled, his only stipulation being that he should be left free to find his methods and make his own experiments.

He then entered with absorbing interest upon what was to be the most notable work of his life. It was both a philanthropic and a scientific interest. His tender, loving heart went out to these unfortunates—many of them so repulsive—with a royal and extraordinary generosity. There was no effort too arduous, no patience too great, if only one glimpse of reason was brought into these poor clouded minds. But his interest in them was deepened by his belief that the methods of teaching suitable to imbeciles would prove of high importance in the art of pedagogy as applied to sound minds. He felt the wastefulness of the ordinary school-teacher's ways, and believed that new methods were needed. By experiments with abnormal and feeble minds, he would find the easiest path of approach to the mind of

a normal child, arguing with far-reaching wisdom, that whatever methods were found to be indispensable in the instruction of idiots would prove helpful and important in all kinds of teaching. Nor was his expectation disappointed. Object-teaching, the principles of imitation, variety, repetition, constant review, the importance of firmness and affection on the part of the teacher, the need of combining mere brain-work with light bodily exercise, careful attention to air, light, and sanitary conditions of school-rooms, etc.,—in short, all the principles and resources of modern pedagogy—are shown very strikingly in the treatment of idiots, who of course become wild or hopelessly unreceptive, when an ordinary child would simply show a wandering inattention, which the old-fashioned teacher rather ascribed to juvenile depravity than to the depravity of his own methods. Into these pursuits and experiments, Mr. Richards threw himself with all the energy of his fine mind and great heart.

One of his favorite anecdotes illustrates his watchful eagerness for suggestion and help in his work. For some time, he had been at a stand-still with a certain class. They could learn no more, and he almost felt his work had failed. One day he was visiting a young mother, who had occasion while he was present, to give the little one some message or other. Quite unconscious of pedagogy the mother rose from her chair—the philosopher watching her—and, crouching to the floor till her face almost touched the child's, spoke her quiet word to his great wondering eyes. The teacher had his lesson, and he never forgot it: that *nearness is power*, and the *natural expression of love*.

From that time his progress in discovery was steady. In 1847 he went to Europe, where he visited some of the principal schools for imbeciles in England and France. On his return, in the autumn of that year, he married an estimable lady, whose devotion to the work

he loved proved no less than his. They continued in it together until the time of the war. His school, at that time, was in New York City, where the general disturbance drew away both the pupils and the financial support which had come to him from the South. And, for the support of his family, he was obliged to take a position in the Custom House—a step which withdrew him from the cause of imbecile education, to his own lasting regret and that of his friends. He had then won a national reputation in his specialty. Havard College had given him an honorary A. M.; and he had the esteem and friendship of such men as Bryant, George William Curtis, Garrison, and many others equally distinguished.

His participation in the anti-slavery cause was active from the first. He was a member of Theodore Parker's congregation, and belonged, moreover, to the most esoteric of the abolitionist circles. Among his papers are certain mysterious passports by which fugitive slaves were introduced from one station to the next of the underground railway. He was not a talker, but a worker, and with the reins in his own hands has often driven over the Cambridge Bridge at midnight a wagon with an invisible passenger, whom other "friends" received, and passed on to Canada. On the night of the famous Simms capture, Mr. Richards was one of the two young men who got Charles Sumner out of bed to hear the news, and who worked till after day-break, ringing King's Chapel bell, summoning lawyers, and rousing the "friends" for the great battle in the Court House the following day.

His philanthropy was not the abstract love for mankind in general, which turns a cold shoulder to individuals. He was the ready friend of all the needy and the sorrowful. Many a poor fellow has been helped back to self-respect by Mr. Richard's wise and infinitely hopeful friendship. He had the divine desire to "rescue the perishing;" and his

fresh, genial sense of humanity often helped him to effect it, when all others had failed. The tramp, the inebriate, the spendthrift, the shirk, were all children of God in his sight; and, to the full extent of his scanty leisure and scanty means, he always gave what help he could. To help a fellow-man was his highest joy; and philanthropy was not a conviction of duty with him, nor a tender sentiment, but simply an instinctive passion, like self-preservation. He believed the lowest idiot and criminal could be reached and humanized, if only enough love were spent upon him.

Next to mathematics, he loved flowers. A day in the country—of which in his later years he had, alas! too few—always brought him the most exquisite and exalted pleasure. No man ever had a keener sense of the "joy of the whole earth." It was once the writer's happiness to be at his side in a place of wild and extraordinary beauty. At such times his deeply religious nature was touched and stirred to noblest and most tender feeling. His whole expression and appearance changed.

In a deeper sense, these lines express the spirit of his whole life. He had many sorrows and disappointments, but we remember him as a glad and infinitely hopeful man. He trusted to have given the remaining years of his life to the noble work with which his manhood began, and had made satisfactory preparations toward organizing a school for the feeble-minded, but it was ordered otherwise. Suddenly a stroke of paralysis fell upon him and in a few hours the spirit had departed. To have known such an abundant and inexhaustible soul is to have been an eye witness of immortality. He is gone forward into the glorious and ever-enlarging future in which he always firmly believed.

Early in his life Mr. Richards studied phrenology and found it useful in his chosen field of labor, and when the Institute was founded he showed a warm interest in it as a lecturer to the students.

FAMILIAR TALKS WITH OUR YOUNG READERS—NO. 7.

AGREEABLENESS AND TUNE.

IT seems to me, my young friends, that we are so put together mentally, we have so many different powers and faculties, that there is nothing wanting, and we have only to use them properly to make ourselves happy. If we look over the list of faculties and think a little about their different meanings and purposes we find that every possible need is provided for; and, besides, faculties that have to do with ministering to the every-day wants of the body,



THE DANISH MINISTER. AGREEABLENESS LARGE.

we are given powers that are planned to supply us with a variety of amusement and enjoyment. The Creator in fashioning the world put a great deal of beauty, grandeur and delight into it, and in the organization of man He set certain faculties that seem specially designed to understand and enjoy the beautiful and grand things of nature. It would be a rather cold, one-sided, dreary state of things if man went tamely about from day to day, eating, sleeping and working, and saw nothing to admire in the sky, the flowers, the

mountains, and in his own work, and found no pleasure in society with his kind. There are some people who appear to live in that way, to be sure, but we know them to be lacking in certain qualities, and dislike or pity them according to circumstances. The wonderful providence of God—and I can not but regard it as a high evidence of the divine regard for the welfare of us human beings—not only gave man the ability to find enjoyment in the labor necessary for life and health, but also gave him power to see a great variety of delightful objects, and to employ them in making others glad and happy; gave him the disposition to kindness, courtesy and sympathy, and the ability to say and do things for the entertainment and pleasure of his fellows.

Some of our faculties appear to have little else to do besides ministering to our entertainment or amusement, while they have an effect in making our character more nearly balanced and even than it would be if we were constantly occupied by serious, prosy matters, and nothing within us directed our attention to the funny and grotesque sides of nature. The two organs I have taken for our talk this time belong to the class of entertainment, manners and culture. They are *æsthetical* in their influence upon our mental nature. You hear a great deal now-a-days about “*æsthetics*.” It is a word from the Greek language, and is used to denote things of taste, beauty and refinement, or the science and study of art and decoration. Music and poetry, good manners, painting and sculpture are *æsthetical*; they are means to adorn character, to give us an upward look, and to make us more tender and companionable, and less selfish.

Agreeableness as an organ of the brain lies in the upper part of the frontal lobe. If you will look at the portrait

of the Danish Minister, and suppose that a line were drawn straight from the middle of the eye-brow to the hair—about where the line would touch the hair—it would touch the lower margin of Agreeableness. There is a fullness in that part of the head of the Danish Minister that leads me to think that the organ is large in his head, and well marked in his character. I don't know "the facts of the case," as the lawyers say, but if the honorable representative of Denmark to the United States is not a courteous, agreeable gentleman, the shape of his head and the general expression of the features in the portrait are deceiving.

When this organ is large and active, he who has it shows a natural disposition to make himself agreeable by polite attentions, smooth and bland language, and graceful movements. You meet with children who are polite and graceful in their conduct and speech, and people sometimes say, "Oh, it's all due to their training and bringing up," but when you look into their homes you are likely to find that they are very different from their brothers and sisters, and from one or both of their parents. If you go into the crowded parts of New York or Brooklyn, where the poor and ignorant live, you will find some boys and girls playing in the streets or alleys who will show you as much, if not more respect and courtesy when you speak to them, than you will get from boys and girls of like age whose parents have high social position and wealth, and who have French maids to attend them and private tutors to instruct them. Some people say that the pleasant, courteous manner, which is so much esteemed wherever we find it, is due to kindness, common sense, a sense of duty and respect, and tact, but a little observation soon proves that while kindness, good judgment, sense of duty, etc., add a great deal to the effect of Agreeableness, they may be pretty strong in the character of one who is rude, awkward and really disa-

greeable in his ways. I know a little girl who is absolutely charming in her ways when in the company of older people, but when playing with children of her own age she is imperious, selfish and often very cruel. I know a boy of fourteen who is a "perfect gentleman" in every movement when visitors are at his father's house, and strangers look upon his graceful manner and readiness to oblige them with admiration, but among his boy friends he is disliked very heartily for his self-assertion, cunning and obstinacy. You probably know people, yourselves, who are kind and generous, good talkers, well educated, yet don't seem to make their way in society; and you have seen others who are selfish, acquisitive, by no means delicate in their sense of duty, and not well educated, yet able to insinuate themselves into the good opinion of those they associate with.

Now this faculty is really one of the most easily trained that we possess, and its value as an element in making the relations of home and the outside world pleasant should draw more attention to it in the training of home and school. I have known persons who, when I became acquainted with them first, were rough and repulsive in their talk and manners, but on being thrown into a new channel, and seeing the need of personal improvement, they studied and practised to become gentlemen, and in the course of a few years were greatly changed for the better.

There is nothing that helps one who is dependent upon himself for his living and promotion like a polite, easy, deferential, accommodating manner. You may have heard the story of the poor boy who applied to a merchant for a place, and entered the business office cap in hand, quietly closed the door after him and stood in a deferential way while the merchant asked him questions about his education and habits, and when told finally that there was nothing for him in that store, bowed politely,

picked up a pen that had fallen from the merchant's desk and replaced it; and, while his features plainly enough showed his disappointment, very respectfully asked the gentleman's pardon for intruding upon his time, and then went out as quietly as he had entered the office. On his way through the store, with his cap in hand, he met the clerk who had shown him how to reach the counting room, and he thanked him for the civility that seemed to have been without the much desired result. No sooner had he left the store when the merchant summoned the clerk, and told

To speak out distinctly but not roughly when answering a question.

To keep silent when others are talking, and never to interrupt a man or woman who is speaking to another.

To resign your chair or seat to a woman, wherever you may be.

Never to take a chair when in a strange house or office, unless you are requested to do so.

When you are addressed to be attentive, and to look the person who addresses you in the face.

At the table to use knife and fork quietly and decently, and to eat without



THE SMASHED TILE. "OH, NEVER MIND, MA'AM, REALLY—HA! HA! HA!"

him to follow the boy and bring him back. "I think that we can make use of that lad's politeness," he said, and he did to great advantage on both sides.

Action has a good deal to do with one's inner thought, my young friends. The mere practice of rules of etiquette will carry with it an effect upon the morals. Such rules as these should be observed carefully by boys:

To take off the hat whenever you enter a house or private office.

making a noise.

To do the bidding of your parents, teacher or employer cheerfully and promptly.

To keep your face and hands clean, and your clothing neat.

These rules will generally apply to "our girls," too, and I will assure you that young people can not do such things every day without rising in mental character, and becoming more and more worthy.

In the illustration we have a good hit in the way of Agreeableness. It tells you at a glance something of this kind: A gentleman called on a lady friend, and while conversing with her, the mischievous little pet of the household got hold of his nice new hat and had a good time with it. When he rose to go, the lady, as ladies usually do, went to the hat-stand to get her visitor's hat, but did not find it there. After looking around she detected little Tot in a corner beating a tattoo with her fists upon the sadly smashed-in crown.

With much embarrassment and mortification the lady brings the wrecked head-gear to the gentleman, apologizes for the mischief done by her child, and endeavors to smooth out the creases and restore something of the hat's former shape. The gentleman takes in the situation at once, and smilingly assures her that "it is of no importance;" a little attention on the part of the hat-maker will set it all right; pats the child on the head, kindly, saying: "Never mind, Tottie, don't cry," and goes away, leaving an impression on mother and child that he is one of the best men the sun shines on. You know very well that it's a very severe trial to any one's good nature to have a nice silk "stove-pipe" badly damaged—and to turn it off with a good-humored remark, and an air of quiet ease, not one man in a hundred would be equal to that. Cultivate your Agreeableness; it is a passport to favor in all the relations of life.

TUNE.

I need not say to you that this faculty gives a great deal of pleasure to us—for you know that music is regarded as one of the indispensable enjoyments of life. Everywhere we go, among the savages and the civilized, there is some kind of music. The cruel Thlinkeet Indians of Alaska have their concerts with accompaniment of tamborine and castanet. The ignorant and sluggish Bushman of South Africa has his drum and *goura*;

from the latter, rude as it is, a string stretched between the ends of a bent stick with a split quill attached to one end, he will produce really sweet tones. No other faculty has received more devoted attention in modern times. If a great singer or musician appears, thousands at once flock to hear him, and will pay a high price often for the privilege of hearing a few songs or pieces of instrumental music.

Besides its side of enjoyment, though, this faculty of Tune has its useful one. It gives us the power to distinguish between sounds of all kinds, and thus we learn to know what causes them. A man



MISS THURSEBY. TUNE LARGE.

may not have his Tune so developed that it gives him pleasure in listening to music, because that really depends a good deal upon the influence of other faculties, but it may be trained to great usefulness in his occupation. For instance, as a telegraphic operator he may have a very delicate perception of the difference of the ticks of his instrument; or as a skillful engineer he may be able to detect by the sound of the piston as it moves in the cylinder, the amount of pressure that the steam exerts upon it, and notice it, too, amid the combined noise of a factory.

This organ lies on the outer margin of the forehead an inch or so above the outer angle of the eye. Musicians show a special wideness or fullness at that part of the forehead. I have seen heads that showed a particular roundness there. Perhaps some of you have heard and seen Miss Thursby or Miss Kellogg or Mr. Whitney, whose reputations are

makes the head broad near the eyebrows. These are the pianists or violinists who excel in fingering, in making rapid and difficult movements, runs, etc., while they may not show very much delicacy and tenderness in their performance.

Tune has a great deal to do in our every day life, more than you think, although I have hinted at some of its



OUR HOME GLEE CLUB.

high as singers; if so, you may remember how broad their heads are a little above the eye-brows. The great musical composers, Mozart, Beethoven, Handel, Wagner, Liszt, in their portraits have broad foreheads, but you will notice that the special breadth runs a little higher up; in them it is associated with the reasoning, inventive and ideal faculties more than with the perceptive and mechanical. Some musicians have remarkable skill in playing on instruments, but not much ability in composing or writing music. You will notice on their heads that the organ of Tune is low, and

duties. People who have a good development of it have smooth, flowing, agreeable voices, and talk with varied modulations; while those whose Tune is small speak usually in harsh, monotonous tones, and seemingly don't know their defect. Some people can not endure discords, harsh, grating sounds, noise, drawling or squeaking voices; they have sensitive nerves and delicate Tune, and sweet, harmonious music thrills them with delight. I have been at a concert of instrumental music and seen roughly dressed, coarse-looking men weep while the band was playing a sweet, subdued

measure. Near them were richly dressed ladies, of the best society, who carelessly looked on or gossipped idly with companions, while the charming strains trembled in the air. Who had the most Tune was clear enough.

Birds have this sense, and in some of them it can be cultivated. The canary has been taught to sing tunes, and the mocking bird practices by the hour on his own account, getting up new trills and tunes, and seems to be very proud when he has gotten off a fine, thrilling note. Some animals like music. You know that the snake charmer plays on a fife or horn or something when he wants to call out his pets from their box and show their docility. In my family we had a beautiful tortoise-shell cat that liked to be in the parlor when any one was playing, and nearly every day she would jump upon the piano and walk slowly on the keys, and as the instrument sounded with each step she appeared to enjoy the sort of music she was making. I have heard her in the night, when we were all in bed, walking over the keys in the same way; the notes came up to us in the second story with a very weird, ghostly effect.

To me a home without music is very deficient in joy, and you ought to cultivate yourselves in some kind. Learn to sing at least. If your voice is poor practising the simple scales will improve it, and if you can study music with the help of a piano or violin or guitar or the flute or accordeon, or any other good instrument you should do so. Those people who have grown up to middle age without some practical knowledge of music don't know how much they have lost of opportunity to enjoy and to make others happy.

EDITOR.

There's music all around
 On land, on sea, above;
 It fills the heart with dulcet sound
 Its true key-note is love.

WHEN THE SHIP COMES HOME.

A snowy sail woos the whispering breeze,
 And faint, fair light touches harbor lee;
 While freighted with treasure yet untold
 Comes home-bound ship o'er the sun-kissed
 sea.

Outlined against the horizon blue
 So fair she seems to the eager gaze,
 As she slowly comes thro' the gloaming
 mist,
 Her white sails shrouded in sunset haze.

With anchor of hope and rudder sure,
 Moving stately over the crested way
 To musical murmur of singing wave,
 Gold touched in light of departing day.

When the ship comes home in twilight hour,
 Like bird of passage o'er shining stream,
 What shall she bring to thee? This true
 heart,

The sweet fulfilment of happy dream.

CALLIE L. BONNEY.

THE CONJUGAL IN EVERY-DAY WORK.
 —A writer, whose conjugal sense is evidently active, says: All theories which are true are capable of being developed into action, and so of becoming good; and all good may be expressed as a theory and so stated as a truth. Just as no action can be a good action unless a truthful theory can prompt it, so can no womanly work be wise unless its male half be with it; so can no manly work be good unless its feminine half inspire it. Just as wisdom and love—or the knowledge of what is good and the doing of what is good—make up a perfect action, so man and woman, in marriage union, make up one perfect being—not two beings, but one being—one finished piece of human life. When the man thinks what the woman wills, and the woman wills what the man thinks, then marriage is perfect. There is no disesteem, therefore, in woman. She is, at least, the equal half of humanity. She supplies to man what he most lacks, just as man supplies to her what she most lacks. It is on these principles that true marriage is based.

THE PROGRESSIVE FACULTIES.

THE intellectual man is a complex being. He was designed for action, character-building, and an immense range of work; not so much to be governed by environment, but to rise above it, and give it new directions. All the mental factors were designed for increase: one to be the co-operative assistant of the other, working together to bring out the perfect man for a perfect world; and that perfect world the monitor of a faultless universe. In order to do this every man should know himself, so as to meet the demands of his creation, and this self-acquaintance would secure the knowledge of others, so that there would be mutual co-operation for the sublimest ends. In order to do this we propose to consider the several classes we meet with in human society as bearing on the interest of the whole. If we could get one to advance into the other in the order of nature, the golden age would not remain the conception of romance, but more than realize Plato's "Republic" and More's "Utopia."

Let us begin with the *thoughtful*, or the untrammelled thinkers, whose life question is, "What is Reality, and what are its uses?" An unthinking man is unthinkable; we might as well talk of unmovable motion. Though all thoughts may not be wise, yet like the first efforts of an eaglet they are toward perfection. One of the wisest of men has said that the chief questions should be: "What am I, where am I, and what is expected of me in the circumstances of my being?" And no true man can remain contented as a know-nothing where all things seem to say, "Search me and know me," and the unending future utters the voice, "Examine my disclosures and decide whether they concern *your* hereafter." The poetic satirist said of the minute philosopher—

"When Berkley said there was *no matter*,

It was no matter what he said,"

the thinkers will not reply "there is *no*

spirit," because one extreme will not gratify another. There being both soul and body will rest among the fundamental as the starting point of other investigations. Some dreary sophists, like the old Greek Diodorus Cronus, may reason just to see how they puzzle their neighbors; and some practical appeal to their sensibilities will be the best corrective. This worthy prided himself on proving that there could be no motion in the universe, inasmuch as a moving body must be either where it is, or where it is not; if where it is, it moves not, if where it is not, then it will be in any place but where it is. The necessity of replacing a broken bone was the only cure for his bewildering logic.

The great thinkers cogitate for utility. They use common sense as an auxiliary. They enter the court of truth seeking evidence. They welcome science, determined to make hypothesis bend to fact; and though not hostile to speculation, they will listen to her prelections, not for curiosity, but with the recurring query, "What then?" Reflection, leaning on the arm of candor, will always be a welcome guest, looking on all sides of a subject. As it muses the fire is kindled on the altars of faith, and faith never remains long unwedded to knowledge. The great thinkers of mankind, the Platos, the Senecas, the Bacons, the Calvins, and the Miltons, became in the order of Providence the patriarchs of the nations.

Next come the *conscientious*, who from seen working principles in the economies of morality, emphasize the word *ought*. From things seen as due, duty emerges from the very conditions and connections of mundane interests. From multitudinous nature as well as the supernatural, life and no life, and from all orders of being come the cries "Pay what thou owest." Man is beheld as a universal debtor. Selfishness and disinterestedness, matter and mind, all

come with the pleas of obligation. For man to live to self alone is impossible; nor can he die, as true science speaks of death, for his own interests—for dying is but transit to one's own place in immensity. The ear of thought has heard from the Chinese characters of a tea-chest, from a broken chain, from the limb of some unknown tree cast stranded from the hidden bodiment; from some familiar sounds of song from a dungeon or distant shore, a call for action, where hitherto there has been placid rest. When the *ought* appeals to the moral faculty, like the widow to the unjust judge, no *avaunt* will bring repose; but the door-bell of the soul will keep ringing till the understanding arises to ask, "Who is there?" For there is much in this feeling akin to restraint or compulsion, exciting more and more the sentiment of obligation; and where there is a large number of men and women in society of high moral feeling and deep convictions of right, who move on the hearts of their fellows for the removal of some great wrong, or the bringing in of better things, the true prophets of the people will never despair of beneficial change. Such march as an army of convictions on the lovers of pleasure, the indifferent to the woes of the unfortunate and oppressed, the vampires of our crowded populations fortified by their environment of greed from the pleadings of mercy and reform. Their cry is akin to the watchman's alarm of fire, or the outpost's discharge of musketry to arouse a sleeping army to resist invasion—a mission of benevolence. Jonah's wrath-preaching to Nineveh; Savonarola's fiery appeals to the luxurious citizens of Florence; Howard, Clarkson, Wilberforce and John Newton, in their march on the conscience of England, rung the *ought* so loud through the United Kingdom against the atrocities of man-stealing that the response was powerful enough from Parliament to shatter the chains of the enslaved in the islands of the West. The callous-

minded, the reluctant—and their name is legion—must be besieged in order to arouse a sense of accountableness, and of bounden duty, in their sluggish morals. A nation, sleeping over its honey-combed and undermined principles is hard to rouse to a sense of what is due to itself and posterity; and hence those who carry on their allegiance to reciprocity and benevolence the burdens of the popular welfare, feel required to keep burning all the signal fires and ringing all the alarm bells of social life.

The *responsibles* follow the *oughts* with the watchword *we must*. Seen *obligation*, like a powerful engine, needs heat—engendered steam to set its wheels in motion. The engineers of the car of progress may say, "the time is up," yet the pleadings of accommodation may cause delay; but when necessity utters "Go forward," the train will run to its destination. Millions have been impelled to say, "Necessity is upon us," "We can not but speak of what we feel and know," "Strike, but hear me," "I have a message from God unto thee," "I can do no otherwise; God help me!" Leonidas and his Spartans, the herald from Marathon's victory to Athens, who gave the tidings and then fell dead; the watch-boy on the deck of L'Orient; the gladiators as well as the Martyrs of the Coliseum; many by the compulsions of tyranny, and many by the behests of chosen obligation come before us as witnesses. Those who serve the right for its own sake are the life-guards of public happiness. In the crisis of beneficial events they often turn the tide of defeat into victory, as Arnold of Winkelried opened the way of Swiss independence over his slain body. That inflexible obligation which lies incumbent on the will of a person, imposed by the power always making for righteousness, and unmistakably seen as such, leads not only to the highest good, but to imperial recompense. It will endure torture, but never crime. Yet rightly understood, this individual "*I must!*" with

its face fixed upon the throne of all Authority, puts itself on the side of the innumerable of order and happiness. It can never know defeat, but as the opportunity of a grand rebound to undisputed triumph. Those who do not hold in their hand this key of true royalty, and know not the secret of true power, are inclined to speak of such as the slaves of a principle and the bond servants of conscience ; yet we might as well speak of the bondsmen of love, the servitors of liberty, or the vassals of the Monarch of the Heavens. Such can only choose that which is lawful, and do that which is just ; but in the obedience comes the highest conceivable freedom. Those who work in faith, labor in hope, and those who can wield only the sword of truth with the shield of God's heraldry on which is inscribed, "We can secure only whatsoever things are excellent," make up the Legion of Honor of the Lord of Hosts.

A vast number march under the banner of *the incapables*. They are the *can not's* of the human kind. The council chamber of their souls is harassed by divided deliberations and counsels ; and the evil inclinations on one side out-number and out-general the good suggestions on the other. They take counsel of their fears more than their hopes, and stop not to consider whether they are chained lions, or the mere spectres of their tested courage. They have motion, like a ship anchored in a storm, but no progress. Such a man was Erasmus, "the glory of the priesthood and the shame," who could commend reform and follow it in a calm, but run and hide himself from it when a storm arose. With decision and resolution he could have brought the learning of Europe to sit at the feet of the Reformation, and been the arbiter of peace between opposing factions and states. He might have prevented wars and revolutions, if his courage had been equal to his convictions, and so lost a crown before which that of Emperor of Christendom would

have faded into gloom. Wanting that confidence which has great recompense of reward, such will pass the gates of the temple of honor, open to their reception, if they see the difficulty still beyond with some drawn up forces on its sides. The timids, the fearfuls, the double-mindeds, the half-hearteds, the entire family of the vacillatings, with the procrastinatings, intermarried with the Micawbers, have a numerous posterity, whose prizes are all taken by the Calebs and Joshuas who live in the hill country of intrepidity, where are the breezes of inspiration, and a clear view afforded of the banners of hope waving from the heights. Those who may be called the *can't's* of society might as well write the word *failure* as their coat of arms in the struggles of existence. They can not come to a decision in the time when all depends upon it : fail to be industrious through want of system ; to be temperate through courage to say, no ; to be honest when temptation offers bribes ; to be virtuous when the sirens sing and the feasts of indulgence are spread ; to be true when it costs self-denial ; and to control themselves, when principle at the helm and the compass-light of duty, would guide them safely through all the coasts of danger, with sufficient energy to use them. Over the cemetery of their inglorious graves, as well as over the entrance gate, might be appropriately painted, "Here lie the fearful and the unbelieving !"

The *confidents*, whose watch-word is "we *can*," and who move against all fortresses of error and iniquity with Grant's message in advance, "We propose to move down upon your works," are generally a singing host, marching into conflict as did the heroes of Gustavus Adolphus, never counting upon the loss of a battle. That which makes them strong is self-knowledge gained in the school of experience ; a disposition to look on the bright side of affairs ; to take counsel with caution, and then act with a full knowledge of their surroundings

and conditions. Deeds that have been deemed beyond the range of probability have been brought within the actual by fearless souls, such as the capture of the old Bastile, the taking of Gibraltar, Vicksburg, Quebec, and Fort Fisher; and reforms, thought to be hopeless; inventions bordering on the miraculous; discoveries into the arcana of nature where the guards of wonder have kept unceasing watch; and changes so remarkable as to verify the prophecy of all things being made new, have met the gaze of the incredulous, well-to-do denizens of the metropolis of conservatism, with envious eyes and ill-concealed dislike.

Such are bold, without rashness; fearless, without recklessness; zealous, without madness; and self-assured, without rarity and presumption; understanding the signs of the times, and when the tocsin sounds the hour are ready to reply, "Here we are, send us!" They may bear various names, as casual men, men of destiny, men for the crisis, men in the right place because the place has been waiting for them, and they both were fitted for each other; and though disappointment might be manifest at first at the form of the leaders, as to the feminine of Deborah and Joan of Arc; the want of courtliness in Cromwell, or the *petit* of Nelson, or the Corsican corporal first sounded from the artillery of Toulon, yet the events vindicated their qualifications. In their first venture of the untried, the suspicions of their people and the modesty of true might, have led them to say, *we'll try*, but the results emboldened the assertion, *we thought we could!*

The *executives*, whose motto is *we will*, are separated from this latter class only by the sense of ability and resolution of the performance. All who *can*, are not the *doers*. Multitudes have seen what they could do, but have not attempted the execution; so we must crown the *wills* over the *cans*. It is sad to think how many inglorious Miltons

have never strung their lyres; how many Livingstones through fixed circumstances have never ventured into the dark continents to let in the light of civilization; how many Stephensons have gazed upon rude railways and left them as they were through time's conservatism; and how many Grants have been kept with the staff, because no fitting emergency had thrown over them the mantle of knighthood. The truly great and favored of their race, are like a line of majestic steamers carrying the untold blessings of the present and the future over the broad Amazon of duty; right being their compass, will the helm, principle their steam-engine; and moving sometimes in darkness and storms, but generally in day-light, between selfishness on one side and prejudice on the other; with false lighthouses here and there, and pirate barques not a few, yet headed straight to the smiling region of coveted success. It is not what men call genius that ennobles them, but conscientious endeavor; not impulse from excitement of the hour, but persistent determination; a foresight of what is indispensable, and an energy which faces the seemingly impossible with the smile of triumph. It is rarely born and educated in the homes of wealth and luxury, but comes forth from those of restraint and industry. Unruffled prosperity and the ready supplies of all natural and artificial wants weaken and depress it; but adversity gives it nerve and body, whence it goes like David from the sheep-fold, or Cincinnatus from the plough, to achieve its victories for the commonweal.

Of what we have said this is the summary. The *thoughtful* stand first among the factors of society, and from the sun-ray of what is, suggest what should be, dealing with obligations and results. From them proceed the *conscientious* who, appreciating what is due to the fitness of things, eliminate the *ought* from their deepest convictions. From them the *responsibles* claim their pa-

rentage ; who carry their allegiance to Dueness into the impulse of *necessity*, feeling, "We *can not do otherwise* than obey, God help us !" Next to these come a large class who, like Issachar, crouch between the burdens, or the opposing territories of heathen Moab and Jewish Canaan ; so that they be regarded as neutrals with the titles of *incapables* on their foreheads, the everlasting *can'ts* of human enterprise, "whose word no man relies on"—whose god is Proteus, their complexion, chameleon, reflecting the last book, orator or company engaging their attention ; people who would be heroes, but for the tug and weapons of conflict ; philanthropists and Christians, if they could remain among the irresponsibles managed by the thermometer, the moon, the wind and the tides. Far above them in the plane of life, appear their moral counterparts, the

confidants or capables, who emphasize their ability to the emergencies of the age. Believing that the power to do comes with the call, they stand as the waiting servants of Omnipotence. Brothers in the assurance of utility come the *executives* or voluntaries of incumbent obligations, whose *wills* are the propulsions of beneficial change. By controlling wisdom and benevolence, man was designed to be master and worker of the instrumentalities of nature ; and he who does not stand in his lot to the end of the days, makes himself an abortive to all intelligencies.

Thought is the parent of what needs to be,
And *ought* records of its verity ;
Must is the impulse to accomplished fact,
And *can't* the coward running from the act ;
Can is the monarch, never made to yield,
And *will* the victor on the battle-field.

JOHN WAUGH.

PHRENOLOGY IN ENGLAND.

THERE are at the present time very evident signs of a revival of interest in Phrenology in Great Britain. It may not be altogether apparent on the surface ; but that says nothing, for the first indications of a new movement or of fresh vigor in an old subject, are not above but below the surface. To read the more prominent newspapers one would think the very reverse were the case ; because when these papers have occasion to refer to the subject, it is to give it a passing stab or a sneer. We had an instance of this in a recent issue of the *Daily News*, professedly the most liberal morning paper in London. It took the occasion of the death of Desbarolles, the famous French professor of palmistry, to have a fling at Phrenology, which it veraciously described as "an effete branch of thought, only practised in holes and corners" by itinerant charlatans. Some allowance is to be made for the *Daily News* in the position in which it finds itself. The proprietors re-

cently deemed it necessary to make a change in the editorship, and Mr. Lucy, who had for some years acted for them in the gallery of the House of Commons, was placed in command. Mr. Lucy is said to be a descendant of the Luces of Warwickshire, famous in Shakespearean story. This, however, may be a myth. The new editor at once set about signaling his advent to power by introducing some novel features in English journalism. He would have been as horrified as the proprietor of any London journal to have seen a heading to his leading articles, but he was bold enough to make a compromise with custom to the extent of introducing a kind of side-heading, after the manner of the marginal notes on County Court Summonses. This, however, was merely a mechanical change, and so of secondary importance. What Mr. Lucy aimed at, was to settle once for all a great many questions that his soul ached to see unsettled. One of them was Phrenology, and he accord-

ingly lost no time in tilting against it. Perhaps we may never know whether he is sorry for what he did or not, but he had several bad quarter-hours after it. The next post brought him so many replies to his unprovoked attack that he was probably surprised to find that for a "slain" thing Phrenology was wonderfully alive. Moreover, successive posts did not fail to bring batch on batch of rejoinders, so many of them coming from remote parts of three kingdoms, that the liberal organ did not venture to select any of the letters in support of Phrenology for publication. O dear, no! That would have shown the world that the "slain" thing was not dead, as averred, and the veracious new editor would have been discredited.

One or two of the smaller London papers followed the lead of the *News* in venturing to have a little fling at Phrenology, or "bumpology," as they like to call it, because it shows so much *knowledge* of this thing, and moreover such wit.

But these papers by no means represent public opinion. The only London newspaper that does endeavor to represent public opinion is the erratic and eclectic *Pall Mall Gazette*. Whatever people may say about its general views and methods, it is honest and it is alive, and that in a manner that can not be said of any other London paper. Well, the *Pall Mall Gazette* is the only metropolitan paper that has of late years had the courage to say a good word for Phrenology (with the exception of the *Echo* under its late editor; of whom more anon). Mr. Stead, the editor of the *Pall Mall*, is a believer in the science, and he is a believer because he has taken the trouble, as far as the leisure allowed by a daily paper will permit, to investigate it for himself.

There are a number of other editors of important journals who are believers in Phrenology and take a lively interest in it. Mr. Aaron Watson, late editor of the London *Echo*, now editor of the Shields

Gazette and sub-editor of the Newcastle *Daily Leader*, is one, and he is perhaps one of the best amateur phrenologists in England. The proprietor and editor of the *Northern Echo* is also an earnest supporter of the science, as are likewise the editors of the *Dundee Advertiser* and the *Dumfrie's Standard*. The latter is also a writer on the subject and on Physiognomy. Many others might be mentioned.

One journalist, who has done as much for Phrenology in this country as any living Englishman, is now almost beyond work, having reached his eighty-second year; although one may occasionally see an article of his in one or other of the co-operative papers. The gentleman referred to is Mr. E. T. Craig, of Hammersmith, one time editor of the Oxford *University Herald*, and author of the "History of Rabaline," which embodies his experiences in connection with a co-operative experiment he made in Ireland many years ago, with a large measure of success, which in his "History" he attributes largely to his acquaintance with Phrenology. For many years Mr. Craig was a lecturer on Phrenology, and in many parts of the country his name is still a household word in connection with the subject. He is now almost bed-ridden.

Another name that should not be passed over is that of Mr. Wm. Tarver, editor of the *Christian Million*, and *The Housewife*, the latter a monthly periodical, in which a page or two are given to Phrenological delineations from photographs, and evidently with good success. The delineator is Mr. Jas. Coates, of Glasgow, the best known phrenologist probably now in Scotland. He contributes similar delineations to a popular Scottish paper.

There were never so many lecturers in the field as at the present time. They are doing a good work in popularizing the science among the masses; among them are a few of signal ability. Mr. Nicholas Morgan, of Sunderland, the

author of several able works on the science is well-known. In his books, as in his lectures, this phrenologist displays more than common independence of thought and originality. The general run of the English phrenologists, however, are inclined to be imitators of the eminent American phrenologist and lecturer, Mr. L. N. Fowler.

A number of new men have recently made their appearance in public with more or less success; one of them, who at present bids fair to do good original work in Phrenology, in England, but he, either from a retiring disposition or press of business in other directions, is little seen in public. The gentleman referred to is Mr. A. T. Story, the editor of the *Phrenological Magazine*. He is the author of several works in addition to his contributions to phrenological literature. [It is said that the latter and a London physician are engaged on a work on the skull].

One word about the medical profession. For years past, the doctors have been the greatest enemies of Phrenology, and have really been the cause of its unpopularity, or perhaps we should say

its unfashionableness. But all that is gradually passing away. The younger generation of medical men are turning their attention to Phrenology, and even many of those who are not incited to give special study to the subject, speak of it with less prejudice and ignorance than their elder brethren. A young doctor, one, too, who writes for the chief medical papers, remarked the other day that with every fresh advance in our knowledge of physiology we were brought nearer—from the physiological side—to the phrenological ground, and he said he felt convinced that within a few years a discovery would be made that would result in a complete *rapprochement* between Phrenology and physiology. Incidentally it may be mentioned that another sign of the growing popularity of Phrenology, in directions where it was formerly tabooed, is the fact that *The Family Doctor*, a popular and ably conducted periodical, has recently taken up the subject of Phrenology with much success. There are therefore all the indications of a great future for the science in England.

THEO. ST. MARTIN.

DUBLIN, IRELAND.

THE extraordinary movements in Great Britain respecting the future of Ireland, have invested that country with special interest to all who speak the English language, and probably most of us Americans have learned more about the real state of the Irish people during the past month or two than we had any notion of before. We have frequently met with intelligent people who appeared to think that Ireland was for the most part, a land of bogs, dirt-cabins, disorderly and ruinous towns and a generally squalid people, and when told that some of the cities, towns, and neighborhoods are unrivalled for beauty and order they were much surprised. Dublin, the chief city of Ireland, is always spoken of in

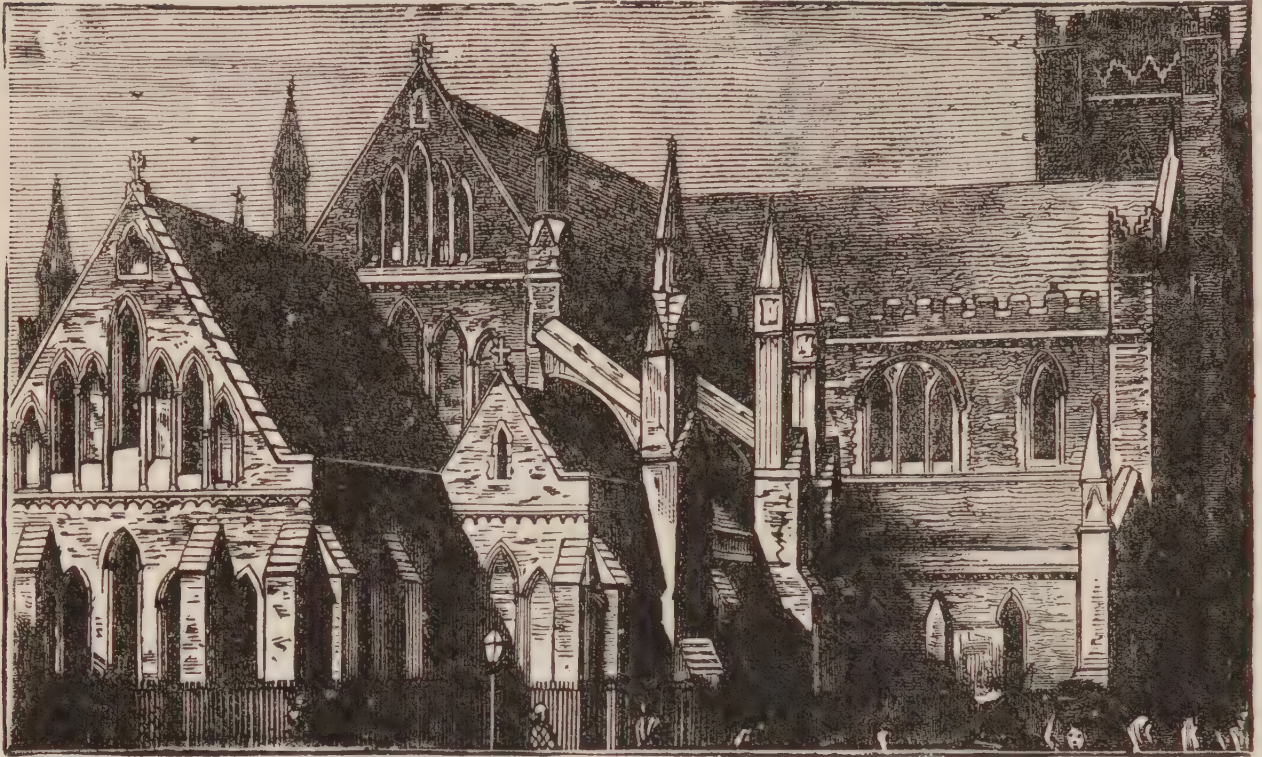
terms of admiration by the traveler. Its situation on the Liffey River is exceedingly fine, and its bridges, quays and streets are such that any city in the world might be proud to own them.

The illustration shows part of the river front, with Carlisle Bridge in view. This is described as the bridge nearest to the sea. On either side of this bridge are wide and very handsome streets, filled with lofty houses, and lined with splendid stores. Of the two thoroughfares direct from the bridge, Sackville Street, on the north side of the Liffey, is the grandest. There is, indeed, no wider, or in point of vista, no more beautiful street in Europe. It has sometimes been compared with Broadway of

THE LIVERY-VIEW OF THE CUSTOM-HOUSE.



New York, but the exceeding width of the street rids the traveler of the ideas of crowding, or of that overwhelming idea of the business done in Dublin. On the right is a view of the Custom House; a colossal and beautiful structure, re-



ST. PATRICK'S CATHEDRAL.

business activity which he gets in other great cities. It is the grace of the place that has its charm for the observer. minding one of the central division of our national Capitol. It has four fronts built of Irish granite and Portland



TRINITY COLLEGE.

In the illustration the closely anchored or cabled merchant vessels furnish some stone, with handsome balustrades running along the summits. In the centre

is a lofty dome, on the peak of which is a figure of Hope.

Trinity College is shown in the next engraving. This institution owes its origin to a former Archbishop of Dublin, Adam Loftus, who persuaded the citizens to utilize for a college the lands of the Priory of All Hallows, which Henry VIII. seized and turned over to them. In 1591 the King granted a charter for Trinity College and it began its existence with Adam Loftus as Prevost, and three Fellows, James Fullerton, James Hamilton, and James Usher, afterward one of the great ornaments of the Anglican Church. In some years which followed it was so poor that examinations for scholarships could not be held ; at other times all educational work had to be suspended on account of the tide of war flowing through the city. When James II. was assembling his forces in Dublin for his unfortunate campaign in the north, Trinity College became his arsenal, and was placed in a condition of defence. The chapel of that period became a magazine, and the library and chambers of the students were broken up and used as lodgings for the troops, or as cells for the confinement of prisoners. In 1798, and again in 1803, the

building bristled with cannon, and soldiers occupied it. It is, indeed, the eventful character of her history, as well as the brilliant careers of her more distinguished scholars which have made "Old Trinity," a title so often mentioned with pride by Irishmen.

Another monument of special distinction and a representative of religious sentiment, is St. Patrick's Cathedral. This owes its origin to John Comyn, Archbishop of Dublin, who, in 1190, is said to have selected the site because there was here in ancient days a well, and some say a church, which had been used by St. Patrick. The cathedral, like Trinity College, has had an eventful history. It has been used for the courts of law, and over and over again for a military barrack or a prison. The principle monuments in the cathedral are those to the memory of Swift and Stella, the great Earl of Cork, Curran, the orator, Charles Wolfe, Archbishop Whately, Lord Mayo, Governor General of India, and other distinguished men. In 1865 the edifice was completely restored at a cost of \$750,000, through the munificence of the late Sir Benjamin Lee Guinness, the famous brewer.

LATTER DAY PILGRIMAGES TO MECCA.

THAT bigotry in religious, as well as in medical, educational and political matters, is dying a slow but deserved death, we all know, and naturally all who appreciate brotherhood in humanity rejoice at every additional evidence of the hastening dissolution. Facilities for the full use of that form of worship which best consoles him are now offered to the devotee in nearly all lands where civilization and Christianity have obtained a solid foothold. Without doubt, the concessions made to other forms of worship by Christian rulers, have had, and will continue to have, an influence in favor of Christianity which could not

have been created by any other means.

A most notable event, as proof of lessening prejudices and increasing charity, has recently occurred in the perfection of a system by which the faithful Mohammedan may perform his pilgrimage to Mecca in safety, freed from many of the harrassing impediments and actual dangers that formerly beset the pathway of all who coveted the title of "Hadji."

Inveighing against fanaticism will not convert the believer to any other faith, while a respect for his earnestness may win from him a like respect for "the Christian dog," who smooths the

way to Hedjaz, and renders it a highway of comforts along which the most feeble and witless pilgrim may travel in peace.

To the far away reader only the poetic side of the story impresses the mind, but the wanderer in Oriental lands witnesses the suffering and realizes the abnegation of the anxious ones who believe that only the magical word "Hadjj" will secure to them a seat in Paradise, and so they toil on with their faces steadfastly set toward the sacred spot, whereon they love to lay their offerings, and the kisses of their parched lips, undeterred in their purpose by the fact that of the great processions of Mecca-bound pilgrims, comparatively few return to their homes.

If any incidental matters will impress the half-hearted Christian with his half-heartedness, it will be to witness the endeavor of many of the pilgrims to complete this journey before death interferes. A few artists have risen to the occasion and sketched some of the pathetic scenes by the way, but he who looks on with his own eyes, and not through those of another, will say, "Behold, the half was not told me." It is a well-deserved honor to Messrs. Thomas Cook & Son, the well-known excursion and tourist organizers, that they have

been appointed by the English government of India as the special agents for the transportation of the Mohammedan pilgrims. The government has frequently legislated in reference to the pilgrims, and many stringent regulations have been instituted for their benefit during their conveyance from Indian ports to Jedda. Special provisions have been inserted in the "Native Passenger Ships Act;" yet the desired result was not reached, as the pilgrims were compelled to trust to their own arrangements and bargains with ship owners.

The perils which commenced at the very outset of their journey will be almost wholly prevented by the efficient supervision of this very powerful firm. Not only will the Mohammedan be conveyed in peace and safety to the spot of which he dreams, and toward which his face and eyes are turned at the hour of prayer, but he will be returned to his home in the full enjoyment of the enviable tranquillity that comes of a sacred duty done. Out of the benefits provided for the pilgrims will grow manifold benefits to the world at large, and the dire consequences that so often have followed in the footsteps of a vast concourse of those enthusiastic devotees will become a matter of history.



THE USE OF PHRENOLOGY IN BUSINESS.

IN most large manufacturing establishments when any reference to Phrenology is made, the head or manager will say, "Yes, I gave some attention to it when young, but I can not see any way of making it useful. The charts and characters used to give directions for enlarging and improving the mental powers, but there is nothing I can make use of." This is quite true. "Buncombe" has too frequently made a part of the description of character to the subsequent injury of the science. Phrenology, however, may be made use of in any large business house. Every such house has

men and boys to promote. There are new duties to be performed and the question comes, to whom shall they be assigned? Departments run with friction, work is difficult and unsatisfactory, and a change of men does not produce a remedy. While many business men boast that they are never mistaken in a man, the fact remains that mistakes are constantly made in large establishments by putting "round men in square holes." The resulting "fits" are both annoying and expensive.

A little history may be both useful and instructive, while it will illustrate the

title of this article. The business manager of a very large manufacturing concern in the East adopted the plan some fifteen years ago, of sending his young men to a phrenologist. The boys knew little of the errand. The phrenologist had his instructions, however. He was expected to measure each one, not as an individual and relatively to himself, but as a man among other men. There were to be no directions about eating or improving the mind. What is this boy? What can and what can he not do? How does he compare with the other boys I have sent you? Has he mechanical talent? Is he "business?" Can he handle men? Is he accurate? Honest? Can he work? Will he learn? To such questions the phrenologist was expected to find answers, and to point out any good traits likely to be useful.

Of one batch of boys, among whom was the Superintendent's own nephew, the reports were widely different. All were in the line of promotion. All were like "young bears with their troubles to come," and all were just out of school, as green as they were full of school wisdom. What happened must always have seemed to them pure luck, for all wanted the same fat office. One was put in the tool-room of the machine shop, and apprenticed for three years to learn the trade. Another went into the same shop to serve but eighteen months. Another was sent into the auditing department as a bookkeeper. Of the two remaining, one was made a sort of private secretary to the Superintendent, and the other was set at the telegraph desk.

This wide distribution of boys who started abreast was not due to favoritism. Of the first it was said, "he is a mechanic of the first class, but he can not do business." The Superintendent says that when he has finished his trade he will be established as head tool-maker and given charge of that department. The second was put into the shop just long enough to get a smattering of the machinist's trade; and it happened that

in eighteen months from the time he began he had charge of a gang of men. It was a striking feature of his character that he could handle men, but was in no sense a mechanic. He had only to learn enough of the trade to be intelligent in it. In a little over a year, to the surprise of all and by the Superintendent's orders, he was passed through the whole department, a perfect "iron butcher." In the same manner each of the others was put at once in training for the work nature had fitted him to do best.

Had they all been put into the counting-room or into the machine shop, time, no doubt, would have sifted them, but at what a waste of effort. In the meantime, business would have been more or less disturbed and precious opportunities for the boys themselves, would have been wasted. The swift, accurate little fellow at the operator's desk, and head of the telegraphic department, no doubt had some disappointment that he was not made private secretary, but he was saved the mortification of trying and failing. In his own department he never made any blunders, he knew all about what he was doing, and the necessary assistance was furnished the more readily as the head was certain that he had the right man in the place.

It was no doubt considered a piece of favoritism when Raymond had to take three years at the trade, while the Superintendent's own nephew served but eighteen months, and before he was able to chip the fire from a casting in good style, or turn up a journal to size, was promoted to the position of foreman. One or two other boys, who in the meantime applied for places, were disappointed, after a trip to the phrenologist's, that they were not wanted in any capacity.

The story, and it is a true one, illustrates the points completely. The young men should be sent for examination, and the phrenologist should have the fullest understanding of what is needed. It is not a chart of character, but the

measure of the man and his abilities. The manufacturer may be supposed to say, "Give me an indicator card of this youngster. Work up his horse power. Test him for economy, and let me know the result."

Phrenology often seems to fail in the eyes of the masses, because Tom, Dick or Harry are called up at a venture and the question is asked, "What are they good for? What is their peculiar bent of mind?" Now if Tom was out of hearing, and Tom's friends had not asked the questions, the answer would have been sharp and prompt, "Nothing. A very ordinary fellow; is neither 'round' nor 'square,' and not likely to fit into any place very accurately." In fact Tom is one of those very average fellows who have no particular place in the world. They are not needed. Nobody wants them. When a batch of such fellows are sent from a manufacturer to a phrenologist, the latter must tell the truth in the squarest fashion, and the former must try again if he wants to find a boy to educate for a particular place.

There is a wide-spread feeling in the community that the land is full of "Mute inglorious Miltons," and "Village Hampdens," and their first instinct on meeting a phrenologist is to find out who is Hampden and which one Milton. No one knows better than the phrenologist that in this country at least, little or no

good timber is lying idle. In sending a number of boys for examination the business man must not feel surprised nor disappointed when he is told that no one of them will rival Stewart or Claflin in business talent. Indeed, it should not be a matter of surprise if a long search was necessary in order to find a first class boy to do errands and miscellaneous work about the establishment.

Another very valuable feature in the possession of a chart of character is that the head of a department may know at a glance, in case of errors or failures to carry out instructions, whether the blame should fall on the employee. If the work has been unsuitable or beyond the ability of the person to whom it has been intrusted, no blame should attach to the individual, but rather to the superior. The chart or report also enables the quantity of work expected to be graduated to the capacity of the worker.

The knowledge of the character of subordinates, which the employer may gain from the phrenologist, is in the highest measure beneficial in whatever light it may be considered. It tends to produce certainty and satisfaction in the mind of the employer, because of his perfect understanding of their capabilities and limitations; and this knowledge when rightly used will result in contentment among the employed.

W. E. PARTRIDGE.

SOME FLORAL GOSSIP.

IN an article on flowers and their traditions, a writer in a London paper observes, that flower lore is still studied in the country districts to a far greater extent than is credible in this prosaic age. Mugwort, he tell us, is still plucked on mid-summer eve, in order to guard against fevers, and a bunch of it on a door is a sure security against all attacks from the evil one. Whitethorn, too, when gathered on a May-day is a

safe guard against malignant fairies and evil spirits.

At the time of the marriage of Prince Leopold, his bride wore violets, a fact that caused one lady of rank and fashion to exclaim: "What could they have been thinking of? Violets are the garniture of a corpse, not of a bride. No good will come of it;" and when the fair young bride of a few short months donned the sable weeds of widowhood, her

friends could but remember the fateful violet loopings of the wedding gown.

The hawthorn is in England associated with the memory of May-day frolics of ye olden time, when lads and lassies danced merrily around the May-pole decked with the hawthorn blossoms. Tradition tells us that the staff of Joseph of Arimathea was from a hawthorn bush, and upon being thrust into the earth the night of the crucifixion, immediately burst forth into leaves and blossoms.

The lotus was consecrated to the gods Isis and Osiris by the Egyptians, and if one ate of this plant they forgot their native country. Tennyson has embalmed this old tradition in one of his early poems, "The Lotus Eaters."

Almost every nation has its own favorite flower. England has its emblematic rose, France the lily, Scotland the thistle, and Ireland the shamrock. In Japan the cherry blossom is the national flower, the blossoms are often as large as a rose and even the trees are worshipped by some of those flower loving people; their native poets have written, it is said, tens of thousands of verses about the cherry tree; and second only to its blossoms stand the chrysanthemums in public favor. The latter plants are unequaled in any other country, some bearing three and four hundred blossoms at a time.

Almost innumerable are the legends of trees. According to Scandinavian lore Adam and Eve were formed from an ash and an elm. In their mythology, the ash, from which the first man was formed, was guarded and cared for by the gods, and their councils were held beneath its branches; from its roots sprang forth two fountains, in one was Wisdom, and in the other Prophecy.

The poplar tree was considered a particular favorite of Hercules and he wore a chaplet of its leaves into the infernal regions. Ever since, the upper side of the leaf has been darker on account of the smoking and scorching it received.

The tree was consecrated to Time, because its tremulous leaves were never still, and the dark and light of its under and upper surface represented day and night.

The fir tree was greatly venerated in past ages, and we read of it in Tacitus. One legend tells us that when Adam was banished from Eden, he took with him a fir twig which he planted; it grew for many centuries and at last was made into that cross that bore the Saviour of mankind. In some parts of England to this day, the people carry sprigs of the mountain ash about their persons to keep away evil spirits, and drive their cattle with rods from the same tree. In India, too, we find the same superstition, and the ancient Druids regarded the presence of the tree as a sure safeguard against witchcraft.

We shall all, however, agree in pronouncing that tree to have proved the most fatal to the happiness of mankind that bore the fruit which, Milton tells us, "brought death into this world and all our woes."

A. L. R.

KINDNESS TO CHILDREN.—A writer in speaking of the need of making home attractive to children says: The time comes fast enough when there will be no little careless hand to make a "muss" on the clean table cloth, no tiny fingers to scatter things round, no clatter of childish feet on the stairway. Fresh paper may cover all the marks on the hard finish; paint conceal the ambitious handwriting on the woodwork; and those traces of boyish pranks that still remain, the mother's eye and heart may cherish as sacred to the memory of the absent.

In a genial, wholesome, tolerant atmosphere, the boy and the girl will go through the various stages of growth from childhood to adult life, dropping whatever is in its nature juvenile, little by little, as naturally as the bean-vine drops its seminal leaves; but the forbearance and loving patience of the wise father and judicious mother who refrained from "nagging," will not be forgotten.

PEOPLE OF AN OLD MASSACHUSETTS TOWN.

THE town of Heath, Mass., held a Centennial Convention in 1885. In reading the lately published report of it, I was much surprised to find so many names of persons born in that town who have "made their mark" and left their impression on the world. Heath lies on the northern border of Massachusetts joining Vermont, and not very distant from the state of New York, at an elevation of 1500 feet above the sea, and embracing Pocumtuck, the highest point but one in the state. Her hardy settlers were persons of pluck, courage, and "backbone," just the kind to raise children with energy, enterprise and public spirit. They appreciated merit; were reverential and deferential, intellectual and moral. What wonder then that it was their custom when their pastor, the Rev. Jonathan Leavitt, walked up to the pulpit, to rise and bow. He is described as a man of fine appearance, hospitable in his home, a gentleman in his manners, and a Christian in his life; usually wore a great, white wig and a cocked hat. His prayers were usually an hour long, and his sermons of corresponding proportions. Our Rev. Joshua Leavitt, was one of his descendants, born in Heath, in 1794, graduated at Yale, 1814, admitted to the bar, 1819; established in Heath the first Sunday school in that town or region, and was the only lawyer who ever undertook to practice law there. He was ordained for the ministry in 1825, and in 1831 became the editor of the New York *Evangelist*, and in 1837 of the *Emancipator*. From 1848 until his death he edited the New York *Independent*. He died in 1873 in Brooklyn, N. Y., as well known throughout the United States as any man who lived in his time. Dr. J. G. Holland was a Heath boy and man, his parents having brought him there at the age of three years. Here he imbibed those moral and elevating views and in-

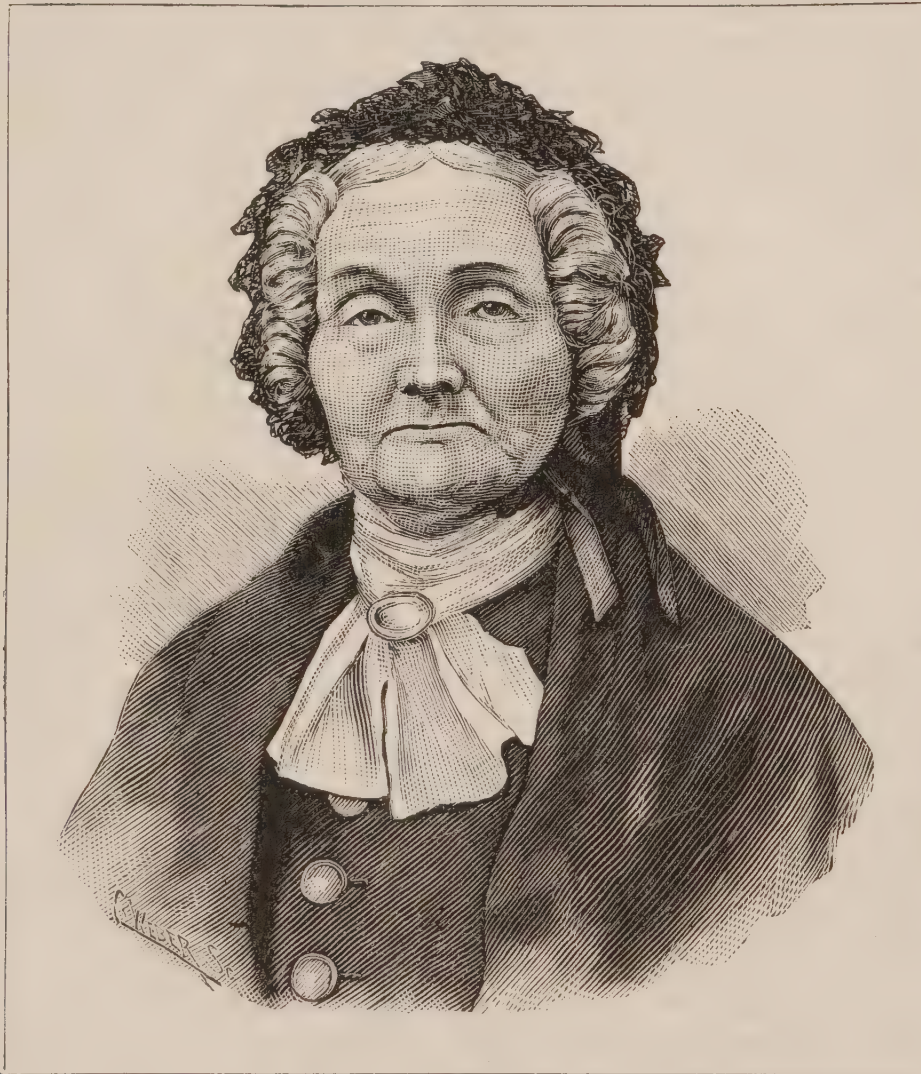
fluences which impressed themselves on all his after life and writings. Many men, natives of Heath, are scattered up and down and over the world, peopling the West, North and South; going as missionaries to India, the islands of the seas, and various parts of our globe. The Rev. Lowell Smith, D.D., went to Honolulu in 1832, where he has lived more than fifty years, and his labors there are said to be highly blessed. Probably no other person did as much to make the Heathites what they were as did the Rev. Moses Miller, parson of the Congregational Church, educated at Brown, a thorough scholar, dignified as became one in his position, a man of excellent judgment, a good adviser, ever ready to sympathize with such as needed it. Rev. T. H. Hawks, D.D., says of him: "He seemed to me in the days when I first went to church the impersonation of dignity, sanctity and learning." He was the pastor of this "model town" a whole generation, or from 1804 to 1840, thirty-six years. He taught young men, preparing them for college or for various business callings. Without him Heath could not have become quite the Heath, that is known to have sent its rays of virtue and intelligence to shine far and near.

As I read the names of its men and women they seem like household words, so familiar are they by reason of having heard them spoken many times. Howland, Hastings, Leavitt, Gale, Gleason, Hazen, Hawks, Lowell, Lyman, Bates, Maxwell, Hunt, Heath, Adams, Snow, White, Temple, Taylor, Ruggles, Rugg, Williams, Avery, Brown, Thompson, Harrington, Taft, Dwight, Reed, Allen, Emerson, Kinsman, Woodbridge, Chavin, Tucker, Barker, Miller, Holland, Harris, and Flagg are all familiar names, and belong to well known men. Men were not alone in inscribing their names on the roll of fame, but the noble wo-

men of Heath kept step with husband, father and brother. Many achievements credited to men are truly as much the outgrowth of woman's efforts, but she is usually the "silent" partner; nevertheless, her silent influence is potent, and but few men of power, character, intelligence and influence but would say they owe it all to their mother. Having had personal and thorough acquaintance

on history, mathematics, ethics, jurisprudence, education, and so on.

One of these women was my "step-mother," and to her do I owe much. She often received visits from old acquaintances, school-mates, teachers and relatives, from whom I had an opportunity to judge of the quality and character of the moral and intellectual leaders of her native town.



ELIZABETH TAYLOR AYER.

with several Heath women, and judging those I have not known by those with whom I have come into close relationship, I will truly say that they are seldom equalled and never excelled. They were very highly educated, independent thinkers, of the best conversationists I ever knew, well-posted on not only the topics of the day, but also on the sciences, religion, politics, and could cope with most men in reasoning, argumentation,

Others of the same character it has been my privilege to meet at different times, and in various portions of our expansive country, and they have all exhibited the same qualities of mind and culture, and every one proved as independent in mental characteristics as was my mother; all fearless in giving expression to their thoughts and beliefs, seeming to partake of the nature of their rugged and elevated native home. One

of the sisters of my mother, Miss Betsy Taylor, taught the district school in my father's neighborhood when she was in her teens, and I was a little girl. Afterwards she became a pupil in Miss Lyons' seminary, at Mount Holyoke, from whence she went to Mackinaw, Mich., as a missionary teacher of the Indians, and was thus employed by the "American Board" twenty-three years. She then became a missionary on her own account, and opened a school of her own for Indians.

One Indian girl came to her on snowshoes a hundred miles in mid-winter, and was educated.

I once said to a beautiful Minnesota lady, whose mother was an Indian, "Did you ever know Mrs. Elizabeth Taylor Ayer?" "Oh yes," said the lady, "she taught my mother how to make bread."

A few years ago an Indian occupied the pulpit in an Episcopal church in New York, and in conversing with him after the services he said he was one of Mrs. Taylor Ayer's scholars.

She was not allowed to cease her labors as teacher until she was more than seventy-five years old, for her ability was prized so highly, the residents of Minnesota would not willingly take a negative reply, while she felt that children and youth ought to have a younger teacher. She still lives, and her chirography is like 'copper-plate engraving'. She was born in 1803. From the hardships with which she has had to contend one would think she would be by this time polished to a very fine point. Her history should be published as an example and incentive to others to do their best in this life.

She is but one of the many native women of Heath who have gone from her home and made the world better for her having lived in it. Many others would have done as much had a similar path but opened to them.

Many of the inhabitants of the place died at an advanced age. Of John Hastings it is said that "he was town

clerk for many years and became so accomplished in the duties of the office that when he removed to Onondaga, N. Y., he was chosen to that office, and has held it ever since, although he is now ninety-five years old."

The key to the intellectual culture of Massachusetts people is its early foundation of public schools. "In 1645, by agreement, each family in the colonies contributed one peck of corn or its equivalent, twelve pence in money, or other commodity, for the endowment of Harvard College." Other colleges followed and all of them are Christian, but not sectarian in their teachings, always under the domination of Christian influence but not under ecclesiastic control.

Although these deferential people appreciated manliness, dignity, knowledge, position, power, and probity, yet they were not lacking an opinion of their own, and notwithstanding that they were accustomed to rise to their feet and stand with their heads bowed while their pastor, Rev. Jonathan Leavitt, walked up to the pulpit, still, when he asked for more salary because during the Revolution the paper money had become so much depreciated in value, the town "proposed to pay the salary as it had been agreed, in produce and property according to a scale of prices; grass-fed beef at \$2, and stall-fed beef at \$3 per hundred, wheat at four shillings, rye at three shillings, and corn at two shillings and sixpence a bushel, and other things in proportion. Mr. Leavitt seemed reluctant to accept this arrangement, and after several town meetings, and some angry debate, it was voted that until matters could be settled with Mr. Leavitt on an amicable basis, they would make no farther provision for his support, and that they would close the meeting-house, which was accordingly done by the constable under the direction of the selectmen."

This occurred in 1778. Mr. Leavitt had been preaching there twelve years "to the general satisfaction of the

people from all the region round about, coming from a wide extent of country including the present towns of Heath, Charlemont, Buckland and Hawley. Some came on horseback, some on foot for miles around, carrying their children in their arms; some waded, some forded, and some boated the rapid Deerfield, or crossed on its frozen waters. Some came on sleds, perhaps a few in sleighs, but none ever came in anything like the vehicles of the present day.

They had no cushions to be seated upon, but a rough, hard board and no back to lean against, and they had at that time, long prayers and long sermons."

Not alone in temporal affairs did the minister and people differ. He was expected to preach not less than one doctrinal sermon a week.

There being but few books, amusements or papers, every body went to meeting expecting sound doctrine, and when one of their chief men was arraigned for absenting himself from public worship, he was charged with "walking disorderly," to which charge he replied "that among other reasons the pastor in a Fast Day sermon had advanced views of which he did not approve, and had in another sermon made statements as to the 'Divine Benevolence,' which the respondent believed were false."

In those days the town paid the expense of church building, and the minister's salary.

The hearers differed with each other as much as with the minister in belief, and the attrition of a war of words and views kept them wide awake in more senses than one.

It would be very easy for a phrenologist to describe the style of heads prevailing among such a people. They reasoned from a groundwork of facts, to gather which, requires long or arched eyebrows. They were naturally philosophers, and that called for wide and full foreheads. They were good talkers, and thus got credit for what they knew, and

that required a full development of the eye, which, when the lower part is fullest, gives Volubility, and the upper part *text* of words, "the right word in the right place." Their missionary spirit indicates large Benevolence. Their devotion and deference are the result of Veneration. Tenacity of will accompanies Firmness, and Self-esteem defends one's own opinions. As a rule they had less Approbativeness than Conscientiousness, which made it seem their duty to correct errors and erroneous views.

My mother illustrated this phase of character once in the following manner: One Monday morning, although the usual washing day, and when the "odd ends" of Sunday were gathered up, she left everything to go a quarter of a mile to a neighbor's, where was to be seen the minister—Rev. Mr. Millard—who she heard preach the day before in our district school house. He was the first man of his denomination who ever preached in our town, and she deemed it important that he be made to look at the doctrine of the Trinity and the Divinity of Christ as seemed to her the true view. He was to leave the place at noon to fill another appointment, and she remained and argued with him from breakfast till noon, about four hours.

Ingenuity showed itself in various ways and grew out of Constructiveness, and aided them in contriving ways and means to overcome and remove obstacles. They had the courage of apprehension and force, or the combined action of Cautiousness, Firmness, Hope, Combative-ness, Constructiveness, Executiveness or Destructiveness and Acquisitiveness disposed them to defend their rights of possession, while Inhabitiveness called for the defence of home, and the social group defended family and friends. Appetite also called for aid in obtaining its necessary gratification, out of which thought comes the remembrance of one of the many occurrences in my mother's early recollections.

The earliest dwellings were made of

logs, but were succeeded after a few years by "frame houses," when the neighboring men were "invited to the raising," where a plentiful supply of cider or rum was usually expected. At a certain raising were two men who were fond of cider, one of whom visited the jug containing it so often as to cause some comment. In answer to this he replied that Mr. Blank would always get drunk on cider when he had a chance and go home and abuse his family, and out of consideration to them he was trying to empty the jug so that Mr. Blank might not get drunk. Here Mr. A. exhibited the action of Alimentiveness or Bibativeness and Mirthfulness, or ability to make fun and be witty.

They were also refined in their tastes and manners of speech and behavior. Ideality gave them this sense of the "fit-

ness of things," and when the son came in and threw off his hat, almost in a passion, exclaiming, "Oh, it is *hot*," he was very gently reproved by his mother for this superlative ebullition. She said, "My son, you should not say *hot*, for such an expression is not genteel. You should say very warm." Afterward his smaller Veneration would worry his mother by calling anything that was hot, *large warm*.

Imitation was not a ruling trait of the Heathites, hence they were original as well as independent in thought and expression, and self-reliant in action. They had broad top-heads and were high at the crown in the region of Firmness, Self-esteem, Conscientiousness and Veneration, while their foreheads were broad.

C. F. W.

IN FRIENDSHIP'S BONDS.

There is no hour more sacred or more pure
Than that which music hallows, and this eve
A holier presence fills the room, while I,
Entranced, am listening to a strain so sweet,
So piercing in its tones of happiness—
It thrills me to the soul.

Almost the day
Has let its sands run into evening, yet
A dim and mystic light still lingers here,
While thro' the Western windows I can see
The bar of gold that shuts the sunset's gates,
And Night has clasped it with a star.

The hills
Are tinged with dusky purple, outlined well
Against the sky, and all the outer world
Seems blending in some strange, mysterious
way
Its beauty with the music's tenderness.
I still can watch the sweet magician who
Invokes the spell divine.

The slender form
Of one who scarce had tested womanhood,
And yet whose eyes hold thoughtful depths
where truth
Shines fearlessly—for music such as this,
That fills my spirit with a sweet satiety,
Could scarcely flow beneath the touch of one
Less pure—strange that a soulless instru-
ment

Should answer all her varying moods, as
heart

Responds to heart; should thrill beneath
her touch

As if it were some living being, that knew
Each quick emotion that the mistress knew!

The music changes, and my thoughts, too,
change,

Submissive to the power of melody.

Ah, sweet musician, with the tender chords
There is an undercurrent, as of tears,
That lie near happiness—a woman's cry
Against some stern decree of fate.

What want
Has filled your soul with longing, or what
joy

Is missed among your blessings? Yet,
again,

A fuller tone is creeping in unconsciously
To swell the sadness into triumph; peace
Is found at last, and in this hallowed time
I know a battle has been fought and won.
The hardest struggles are the silent ones
Within the deep recesses of our souls.
The night has fallen as the last proud chords
Reverberate; and surely God hath set
His seal upon this holy hour and bound
Our two hearts closer with this harmony.

—KENNETH.

WHOSE FAULT.

THE morning is so charming in its spring-day promises, that I am regretful of any disturbance in the serene enjoyment of it ; but a disturbance comes unexpectedly through my neighbors in the Broadway car that conveys me up town. They are friends, evidently, in the usual acceptance of that carelessly uttered word, these two "commercial travelers" returning from a western trip. One, is a short, heavy set man of forty-five, quiet in dress and manners, dark complexioned with brown eyes. The other is tall, slender, "shallow," alert; a sandy-whiskered dandy in a spring suit of the latest cut and fit, with a gay scarf and multitudinous "pinchbecks" with "glassware settings," by name Clarence. On his way from the cars to his home he has pocketed at the general post office a dozen letters apparently from as many "girls."

That fact is a suspicious one, if the silly girls who thus flatter his overweening vanity would only stop and think of it. New York is a very large village, and many are the dual lives lived therein. The questionable, clandestine correspondence goes to the "General Delivery," otherwise some one of the 1500 letter carriers, needed to compass the city, bears it to the door in his pouch.

One by one Clarence opens and reads his letters, commenting rather freely on contents and authors. The chirography and stationery are not of city origin ; the gay, heartless, selfish Clarence has found the victims of his "love of fun" in rural districts. One girl, Rose, has quarreled with her country lover on account of Clarence, and John has gone to the far West. Ah ! Rose, you little thought that your pathetic letter would be read aloud in a Broadway car, away in New York : that a lady would hear it with ill-suppressed indignation ; that a gray-haired gentlemen would impatiently tap his gold-headed cane on the floor as if he longed to give the puppy a good

thrashing ; that two stolid Irish servant girls with their old country baggage lap held, would listen in amazement, and two silly shop girls would simper in ridicule of the soft, little Rose, who believed in Clarence.

All day the question has been ringing changes about my ears, interfering with other thoughts, "Whose fault?" Many faults are centered in one, no doubt. "Clarence is naturally selfish," the phrenologist would say, "and this selfishness has been fostered by indulgence." He was not taught to regard all women, as he would wish all men to regard *his* mother, *his* sister, *his* sweetheart. Rose and her large sisterhood of foolish maidens have not been kept close to mother's heart ; they have not been friends with father ; no, nor comrades with brother ; and their reading has not been wisely chosen. The selfish man longing for new sweets, is as a vampire, to the coy girl seeking the sympathy she might have at home if she would.

Dear, good, pure-hearted, plodding John with his great and always apparent love seems to Rose clumsy and slow and dumb as her father's mild-eyed oxen, when Clarence comes along with his witty speeches and quick, graceful movements. Clarence sips the sweets of every rose in his pathway and never looks back to see if it has withered beneath his touch. John watches the bud, idolizes the flower and hoards in his heart the memory of every grace and every breath of sweetness ; he cherishes the leaves when they are faded, and loves them until they are but dust. They have the coziest corner in his treasure house, until with reverent air he must give up all, but the memory of the one Rose that bloomed for him.

Mother is your best friend, Rose, open your heart to her. Father may murder grammar, and forget to polish his boots, but he loves his little girl ; be ever his intimate friend, wind the new tendrils of

your growing years all about him, even more closely than those that caught his heart when you first came into his life. He may be willing to give you to John, because John will be so careful of you, but you will break his heart by wasting the first fruits of your womanhood on Clarence.

A very mild reproof from Clarence's companion was conveyed in the words, "Say, old fellow, that business don't pay," there was even a faint expression of disgust on his face as he spoke. Was there to him a vision of a house, somewhere "uptown," in which little girls were growing up? Why should he venture the reproof? Clarence shoved his letters into his pocket, grasped his "gripsack," said, "Goodbye, come over to-night can't you? mother will be glad to see you." What is the mother like who has sent out into the world such a selfish creature as this son proves to be.

What a pity, this fair mould from nature's hand with its harmoniously outlined social organs, giving such promise of a life rich in usefulness is wasted through lack of knowledge, instead of being what God designed it a blessing to each passer-by in life's great thoroughfare. The selfish propensities of this misguided youth would not under normal control have exceeded the needs of a successful business life. Perhaps his mother lacked in true motherly qualities? His father may not have had the stamina needful to the proper guidance of a boy whom nature had endowed so liberally. Yes, that must be where the first fault began to gather to itself other and worse faults. The father and mother were not harmoniously mated. Ah me! when will the tide of faults swelling from that remote fountain head, cease to do harm?

A. E.

PIONEERING (Old Style).

In dreamland oft by shady streams he
heard a fair one say,

"Come now, and let us pioneer for blossoms
fresh and gay;

For cowslips by the meadow paths and
mosses green and rare,

For beautiful blue violets and lilies white
and fair."

And in his wild imaginings the fragrant
gems were twined,

While she in gentle trustfulness o'er every
leaf inclined.

They heard the spotted-breasted lark, the
bobolinkum's lay,

As merrily the pebbly brook went singing on
its way.

But this was an ideal charm, a being of the
air,

That sailed along his midnight skies, now
here, now everywhere.

A gush of effervescing foam, unlike the
regal bowl

That wakes to thrill and ecstasy the music
of the soul.

Oh, why should visionary joys invade the
heart's retreat,

Since true love finds its daisy cot where
genial currents meet?

His real charmer smiled at length, in vine-
embowered shade,

Where moonbeams sifted through the stems
and zephyrs softly played;

And oft at morn and dewy eve his spirit
hovered there,

Its wealth of sweetness to inhale, to bask in
perfumed air.

Anon, it pierced the yielding veil and
poised on anxious wing,

Sought out the clasp that locked the gem
and touched the hidden spring.

The lattice openings widened now, the
leafless vines grew thin,

And glances warmed by interchange at once
became akin.

It was a summer morning, when o'er the
the woodlands green

Aurora's royal chariot was dripping golden
sheen,

They pioneered a mossy path where flowers
bent with dew

Were sending broadcast fragrance out the
whole wide landscape through;

And merry birds were singing there a
wooing time refrain

As beauty shy, but lovingly, responded to
the strain,

And blushing cheeks grew radiant, and
lips that knew no stain

Enacted what they oftentimes tried over and
again.

—T. C. STEWARD.



A NATIONAL MUSEUM OF HYGIENE.

AT the corner of Eighteenth and G streets, in the city of Washington, there is a large double residence building known as the "Edward Everett House," in which Jefferson Davis lived while he was Secretary of War. This dwelling, while interesting from its historical associations, is much more interesting because it is the repository of a vast number of objects representing the practice and theory of sanitary science.

The Forty-seventh Congress made an appropriation of \$7,500 for the museum, which was the first recognition it had from Congress. J. Mills Browne, medical director in the United States Navy, was placed in charge, and continues the active superintendent at present. The museum is attached to the Bureau of Medicine and Surgery of the Navy department, principally for the reason that naval officers have greater facilities than others for the collection of articles illustrating sanitary science as practiced in other countries.

The plan on which the museum is conducted comprehends the collection of material which shall illustrate the entire scope of sanitation, the delivery of lectures by prominent sanitarians, and the maintenance of a library accessible to all who are studying the subject. There are in the library over 7,300 volumes,

including the standard sanitary books in the English, German, and French languages. There are on exhibition eight hundred different objects illustrating sanitary improvements in plumbing, lighting, heating, ventilation, water-supply, bedding, clothing, marine, house and hospital architecture, the disposal of refuse, the disposal of the dead, and many other things which affect the health.

The idea in establishing this museum was not simply to establish a place where sight-seers could be entertained, but a bureau of which any citizen of the country might ask advice concerning sanitary subjects. Two hundred and twenty articles represent the advance of sanitary engineering, including the drainage of houses, sewerage of cities, etc. Some of these show the improved inventions of the present day, while others show the faulty constructions of past systems. One piece of lead pipe, very much incrustated and foul, was taken from the Executive Mansion in 1880. Another piece of lead pipe, taken from the residence of Dr. Philip S. Wales, ex-surgeon-general of the navy, shows two holes—one where a rat gnawed his way in, and another where he made his exit. This illustrates a common danger in house plumbing. Another extensive exhibit is that presented by a firm of Eng-

lish plumbers, Hellyer & Dent. It shows many very bad examples of plumbing. On the rear, outside of the building, there has been erected a complex system of pipes and fixtures, designed by Mr. Glen Brown, architect, with which a complete series of experiments, showing the effects of siphonage, ventilation, etc., is being carried out. It will be a very valuable contribution to sanitary science.

The section of food and drink is represented by exhibits illustrating improved and defective methods of preserving food; photographs and engravings of food plants and of poisonous ones closely resembling them; samples of food provided for Arctic expeditions, and specimens of liquors aged by electricity. Here is shown the pitiable substitute for food found in the pot at the Greeley camp, when his party was rescued. It is a piece of seal-skin and some moss and shrimps, of which they were trying to make soup when found. It was absolutely their last supply.

The hygiene of dress is represented by a complete suit of underwear recommended by the Ladies' Dress Reform Association. There is also a complete suit of the woolen clothing advocated by Jæger, who goes to the extreme of using woolen collars and cuffs, and of having the stockings divided for the toes, as gloves are for the fingers.

In the division of appliances for protection and rescue, are shown models of life-saving rafts and boats, colliery ambulances, army ambulances, disinfecting ovens, etc. The branches of the military and naval hygiene are fully represented. A model of the twin-ship, *Castalia*, refitted for a small-pox hospital ship and anchored in the Thames River, is a very interesting exhibit. There are models to show superior ship construction and ventilation. There are other models of hospital ships, including one designed by Dr. A. L. Gihon.

The most interesting model of this collection is one showing the Parsee "Tow-

er of Silence." The original of this may be seen just outside the city of Bombay. It is a beautiful garden on the crown of Malabar hill, and the tropical trees surrounding the place are the homes of the innumerable vultures. The tower itself is not a high structure, but is a two-story circular building without a roof. The floor of the second story inclines toward the center, and is laid out in plats large enough to receive a dead body. These plats are floored with an iron grating open to the floor or pit below. The body of the dead Parsee is laid in one of these open plats, and immediately becomes the prey of the hovering vultures. When the bones are denuded of flesh by the birds, they either fall through the grating or are thrown down into the pit beneath by an attendant. In the case of the more wealthy classes the bones are sometimes taken away and preserved. The Parsee believes the action of the vulture is an index to the future disposition of the soul of the deceased. If the right eye is the first one to be plucked out by the feathered oracle, the soul is to rest in the heaven of all good Parsees, but if the left eye is plucked first, the result is something to be dreaded.

The museum has attached to it a fine photographic department for the promotion of scientific work. There is also an experimental laboratory in which there is now being tried an elaborate series of experiments showing the action of certain drugs upon the action of the heart. During the visit of a representative of the *Sanitary News*, of Chicago, from which this sketch is taken, the effect of anti-pyrine was being studied, by keeping the heart of a frog alive by artificial circulation, the blood supplied being treated with different percentages of the drug. Under skillful manipulation the heart could be kept alive for a day or more, its action being perfectly normal, while the frog was entirely cut off from the benefit of his own means of existence.

ASTHMA: ITS NATURE, CAUSES AND TREATMENT.*

THE victim of asthmatic troubles, like the sufferer from ague and fever does not receive his fair proportion of sympathy from those who do not know the distress inflicted by such periodic diseases. They may see him at one time struggling with a paroxysm, gasping for breath, wheezing, coughing, and choking, and a few hours later at his work, apparently no worse for the ordeal through which he has passed.

They have been told by some authority, or somehow the idea has got around, that "asthma never kills, although a rather disagreeable thing to have." Hence the inference is drawn that in asthmatic affection there is "a great ado" not "about nothing," to be sure, but about something which is much overrated by its victims. People have actually died in the convulsions produced by asthma, and on opening their bodies not a trace of disease worthy of the name has been found; but in most cases the disturbed breathing, tightness of chest and stomach oppression that are characteristic of the asthmatic attack proceed from organic or functional affections of a more or less serious nature.

SYMPTOMS.—Without taking up space in a discussion of the nature of asthma, as to whether it is a nervous disease only, or a symptom of organic degeneration, traceable to morbid alteration in the blood, let me proceed to describe its effects. The attack is usually preceded by feelings of uneasiness and fullness in the stomach, languor, chilliness; more or less gas is raised; there may be dull pains in the head, with restlessness; the urine may be more than usually abundant, and of a pale color.

These and other indications of disturbed functions may be present, but with varying degrees of intensity. If the patient can lie down he is awakened in the night, usually toward morning, by a

great difficulty of breathing. The attack will come on by fits, and there is a feeling of great weight upon the chest, or of a constriction as if it were bound by a rigid band. As the attack progresses, the room seems too small to breath in, and the patient will ask to have the windows raised and the doors opened; he will gasp and pant in the effort to breathe, appear insensible to the severest cold, and, during the paroxysm, the perspiration will frequently stand in great beads upon the forehead, and the pulse is quick, weak, often irregular, or there may be palpitation of the heart. The hands and feet are cold to the touch, showing the circulation to be imperfect. After the attack has continued for an hour or more—sometimes three hours, and longer—coughing may supervene, with free expectoration, and relief comes, the exhausted patient falling asleep.

The causes of asthma, like the causes of bronchial or pulmonary affections, are various, and very similar to those of the affections named. As the paroxysms are for the most part spasmodic in their origin, and occasioned by a peculiar irritability of the nerves associated with the muscular apparatus of the larynx, bronchi, or diaphragm, anything in the air that is likely to arouse that irritability, may bring on the attack. Hence, asthmatic people find an atmosphere containing fog, smoke, gases, dust, animal or vegetable emanations and even odors offensive. To some, a dry air is objectionable, a low, moist region being much more agreeable.

Diseases of the throat, bronchial passages and lungs, have a relation to asthma, and frequently occasion it. So, too, heart troubles and stomach disorders, will bring on the attack. In some cases any kind of food excites it; in others only indigestible articles, stimulants and spices, have a tendency to bring on the fit, through *reflex irritation*. So, what-

*Right of re-publication reserved.

ever tends to reflex nervous irritability is likely to produce the unpleasant contraction of the bronchial tubes in one who is subject to it.

TREATMENT.—A very long list of remedies for asthma is furnished by the books on therapeutics, but none can be said to have a positive efficacy, as there is no specific for the trouble. Whatever treatment is given during the fit, has for its object to lessen the suffering and terminate it as soon as possible. Drs. Talford, Jones, Roberts and others consider inhalation of ether or chloroform or nitrite of amyl as the most efficient means for relief, but these substances must be very cautiously employed. Other powerful laxatives and depressants, like belladonna, conium, tartar emetic, hyoscyamus lobelia, cannabis indica, stramonium, have been advised for internal use. Smoking tobacco or the dried leaves or stems of stramonium has been a favorite recourse by many, and if tried in the early stage of the paroxysm may afford great relief. The application of water in one or more forms has been found as operative for the patient's comfort as any of the drug methods without the dangerous or troublesome after effects that may follow poisonous drugs. "The rubbing wet sheet or *abreibung*," says Dr. Shew, "is the great thing. It should be wet in cold water, well wrung out, laid around the patient's body, and the rubbing thoroughly done. It should be repeated until the nervous excitement abates. If sheets are not at hand, towels dipped in cold water and wrung out may be rubbed well over the chest and spinal region." If the bowels have not been free, water enemas should be given to reduce any irritation arising from intestinal obstruction. Some cases yield readily to a warm bath, or the free application of warm water to the chest, front and back. A warm foot bath in connection with the rubbing wet-sheet, or towels, is to be advised, and the patient may be given cold water to drink freely. Dr. Roberts

suggests putting the hands and arms into warm water.

Those who are subject to the asthmatic attack should be careful in their manner of living; but as a rule they are capricious, doing the very things that predispose one to bronchial or gastric irregularity. Although knowing their liability to colds or catarrh, they house themselves closely in over-heated rooms, take little or no exercise, especially in winter, and endeavor to correct the effects of their indiscretion by powerful medicines. A careful diet, with special abstemiousness when a paroxysm is expected, and avoidance of everything known to lead to it is perhaps the best mode of prevention. Dr. Shew regards the *hungry cure* as one of the most salutary in warding off the attack. "One, two or three days fasting, that is, living on pure water, with perhaps a mere trifle of nutriment—although it is, perfectly safe to go that long without food—would be a most effectual method.

* * * So much is this disease connected with indigestion, that many a fit is brought on by a hearty supper taken upon an undigested dinner, whereas, if the dinner had been light, and the supper omitted altogether, the attack would have been avoided."

If the attacks are persistent, in spite of every effort to suppress them, it would be well for the sufferer to change the locality of his residence, as the atmosphere he breathes may contain the exciting causes. As a rule, whatever helps to strengthen and invigorate the functions generally has a curative influence in the case of asthma—and dependence should be placed more upon a proper diet and well-ordered habits than any kind of medicine. The patient should take regular exercise out of doors every day; bathe in the morning—either the sponge or towel-bath, rubbing the body well after the ablution—dress warmly, and avoid undue exposures to either very high or very low temperature.

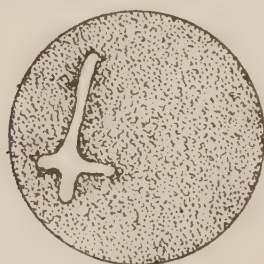
H. S. D.

THE GERM OF MALARIAL FEVER.

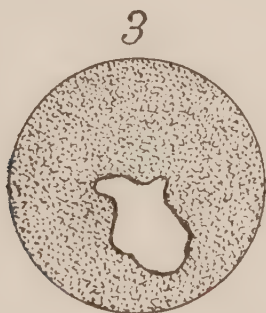
FOR many years there has been a search going on in different parts of this country and also in Europe, for the cause of malarial or intermittent fever, it being thought by many to be due to a minute animal or spore, that exists in great numbers in those districts where intermittent fever is common. As consumption, diphtheria, fevers and many other diseases are now regarded the

Several years ago, Dr. Laveran, a French army surgeon, declared that he had found the parasite; but few would believe him. Now, a Mr. G. M. Stenberg comes forward with the statement that he has seen the infinitesimal monster of infection in the blood of people troubled with malarial disorders.

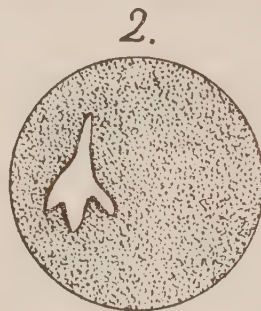
The minute animal, we are told, enters the red-blood corpuscles, or attaches



product of noxious germs, that, have been introduced into the circulation or the tissues and there find conditions favorable for their growth and propagation, it is claimed by a large class of physiologists that all malignant diseases are due to destructive organisms, each disease having its peculiar type of bacillus, bacterium or micrococcus.

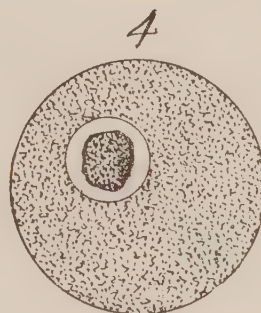


It has been announced several times that a certain microscopist had been successful in finding the little parasite that produced the unpleasant sequences of chill, fever and sweating, but practicing physicians have generally shown a want of confidence in such announcements, because other microscopists with powerful glasses had been studying the air of malarial districts or the blood of agueish patients, without discovering anything uncommon in them.



itself to them. Its discoverers have named it a *plasmodium*. The illustrations are intended to show the plasmodium, as a light spot in the red corpuscles. Under the microscope, it changes form, amoeba like, but more rapidly, assuming appearances like those of Nos. 1, 2, 3 and 4.

Close observations have revealed the



frequent occurrence of a coal black granule or nucleus in the parasite, which is thought to be the cause of the clayey complexion so well-known among old malarial subjects. No. 4 represents the appearance of this black centre. The effect of light upon microscopic objects, especially when examined with very high powers, is so modifying and deceptive as to be at the basis of many controversies among the germists regarding the results of their various investigations.

Therefore we must be cautious in receiving their statements. Dr. Koch has his large following; so has Dr. Pettenkoffer.

The subject of malaria becomes debilitated, anæmic or bloodless; there is a want of substance and nutrition in his blood. If the malarial parasite attacks the red corpuscles, feeds on and destroys them; then we have a reason for the systemac debility. Experiments have been tried in the way of inoculation, with the result of developing intermittent fever, and the characteristic intermissions of the disease are supposed to be due to the birth, development and

death of the parasites which occur in regular, successive periods, a certain time being required respectively for their propagation, growth and death. In this respect, however, the *plasmodium* does not differ much from other disease parasites, and if, as it is claimed, they occur in the blood in myriads, it is likely that millions are coming into life, or maturing, or dying at each minute. It can scarcely be supposed that all live in a certain and rhythmic fashion, like the soldiers of a well-drilled company, all going through their evolutions, as it were by the command of a captain, simultaneously. D.

THE WAY OF THE TRANSGRESSOR.

IN far-away Sweden lived a man whom I shall call Hansen for convenience, though that is not his real name. He was very wealthy, had a good home, a nice wife, and three beautiful children. He and his wife lived happily together, for they were adapted to each other, and their marriage was the result of pure love. In some way, unknown to me, Hansen was tempted to stray from the path of virtue, he yielded to the temptation, and thereby became the subject of a foul disease. Fearing his wife should learn this horrible truth, and crazed with a guilty conscience, he set sail for America and lodged himself in a private hospital in the Rocky Mountains. Here he remained a long time, shut out from society, but not from misery, for he was tortured day and night by an accusing conscience.

In this secluded place Hansen wished to die unknown, and thus hide his disgrace from his friends and family, but fate decreed it otherwise. One morning, as the miserable hours were wearing slowly away, there called upon him an old friend from his native land. Their eyes met, but neither could speak. The friend was overjoyed, for he had been seeking Hansen for months. But poor

Hansen! he was crushed; his last hope was blasted. The tears of bitter retribution rolled down his pale cheeks. "Is this real," exclaimed he, "or am I delirious? Is this a horrible dream? Am I in a nightmare? No! no! I see, I think, I know! It is reality! O, death, where art thou?"

After the excitement had grown less, Hansen and his friend had a long talk. Hansen told his pitiful story, and the friend told him of his home, how his wife and children were heart-broken on account of his disappearance; how she offered all her wealth to him if he would only find her husband; how he had traced him so far, and how glad Mrs. Hansen would be to find that her husband was still living. "No, no!" said Hansen, "that can never be. I am disfigured, and I can never return. It would kill her to know that I was untrue. It would disgrace my children. No, she must not know me living, but dead. 'Tis better that they think me dead than know my disgrace."

In a few weeks the friend was ready to return. He called to bid Hansen good-bye. Hansen's last words to him were: "Tell them I am dead. Give them this token (putting something in

his hand) and they will believe your story."

Hansen has since recovered his health, and spends his time in administering to the helpless. When strangers come he shuts himself up in his own room till they go away.

My wife was visiting at the hospital some time ago, and Hansen came into the drawing-room to ask for advice in relation to some patient. My little boy,

eighteen months old, looked up to him and sweetly said, "Papa." Hansen's large blue eyes instantly filled with tears, and one rapidly followed another down his face. He took the little one by the hand and walked across the floor several times. He then said: "My daughters were their mother's pride, but my boy was my pride," and choking with emotion he went out of the room.

C. H. BLISS.

WATER TREATMENT IN TYPHOID FEVER.

THE *Revue Scientifique* contained a paper read before the Academy of Medicine on the use of water in the treatment of typhoid fever, which deserves more general attention. The form of treatment described differs somewhat from that commonly used in fevers, and appears to have been discovered by a German physician named Brand. It consists, substantially, in putting the patient into a bath warmed to the temperature of his body, and then gradually cooled down to sixty or even forty degrees. The effect of this application is said to be magical in the immediate amelioration of the fever. The permanent effect of it is best shown in the statistics accompanying the paper. In the French army, between 1875 and 1880, there were 26,047 cases of typhoid fever. Of these, 9,597 died, being a mortality of 36.7 per cent. In the corresponding time there were in the German army 14,835 cases of typhoid fever, of whom 1,491 died, a mortality of about 10 per cent. The character of the disease was much the same in both armies, and the general habits and health of the men the same. The only noticeable difference was that in the German army the water treatment was largely used.

An analysis of the statistics of the German army affords still more convincing evidence. From 1820 to 1844 the rate of mortality for typhoid fever pa-

tients was a little over 25 per cent. From 1858 to 1874 the rate was 15 per cent. In 1862 the chief of the medical staff called the attention of the army physicians to Brand's cold-water treatment. The adoption of the new treatment was followed by so marked a falling off in the death-rate as to lead to its still more general use. In the years 1874 to 1880 the typhoid fever cases ranged from 1,741 to 3,620 annually, and the mortality fell from 12 per cent. in 1874 to 8 per cent. in 1880. In the Second Army Corps the water treatment was more thoroughly tested. The death rate which was 21 in 100, after the introduction of this treatment fell off in 1867-'74 to 14 per cent., and in 1874-'77 to 7.8 in 100. In the last named year, Dr. Abel, a strenuous upholder of the cold water treatment assumed medical direction of the corps, and the mortality was reduced throughout the entire corps to 52 in 1,225 cases, or a little over 4.2 per cent. Still more striking is the confirmation afforded by the experience of the five principal hospitals of this division of the army, which were under the direction of Dr. Abel personally. In 1860 the mortality had been 25 per cent.; by 1877 it had been reduced to 7.2 per cent. and during the five years following the coming of Dr. Abel it fell to fourteen deaths in 764 cases, or 1.8 per cent. Many other figures are given, all from official

statistics, and all pointing to the same conclusion. Our medical men generally should give the water method far more attention than they do, for typhoid fever is a disease as fatal in this country as in Europe, as commonly treated, and

the average practitioner thinks that little can be done but to keep up the patient's strength and let the disease run its course. If the patient's constitution holds out he recovers, otherwise he dies.

SLEEP HABITS OF CHILDREN.

MANY habits and customs, the deleterious effects of which are recognized, would become things of the past if a practical and simple remedy could be devised. I have never met with any plainly written advisory articles on the training of children in proper sleep habits, except as to time. A recent experience has led me to "study up," on the subject, in the most practical way, by asking questions of mothers and nurses—My little patient, whose habits and conditions led to this investigation is ten years old. A serious and chronic affection of the kidneys has resulted from excessive use of sweets and consequently lack of appetite for, and assimilation of nutritious food. She persistently sleeps prone on the back with the arms flexed above her head; watchfulness results in her turning on one side from eight to ten times every night, but, of course, a farther result is diminished sleep, although it is not more restless than usual. Whether the habit can be permanently broken up is difficult to say. From her birth she exhibited a preference for that position, and had been indulged in it, with the inevitable results of catarrhal affections, dry throat, enervating, restless sleep; and aggravation of the kidney difficulty, as the spine was unduly heated by constant contact with the bed. From the hour of birth a babe should be laid down, to sleep, with great care, never should it be permitted to lie on the back while sleeping, after it begins to play, the restless limbs are very beneficially exercised while lying so, but so soon as sleep comes the little one should be gently lifted and placed on the side

with the head raised only sufficiently to insure the spine from any curvature, seeing that there are no folds in the clothing to torture the tender flesh, especial care being taken to lay the ear smoothly back. Alternate the sides or there will be an unnecessary unevenness of contour when the child is grown; do not permit the knees to be so flexed as to crowd the viscera. Lying on the stomach occasionally is not injurious if the arms lie at the side and the face is free to the air. Frequently that proves to be a very restful position to a play weary child. It is not a difficult matter to teach a child to sleep with the mouth closed and without snoring or "gritting the teeth." A lady of thirty-five who had habitually gritted her teeth from their first possession was cured of the habit in a fortnight by persistent waking at the first indication of the sound, the habit has not been resumed during the five years since passed. If mothers could realize how many people suffer from bad sleep habits contracted in childhood, they would pay a little attention to their children at night-time, beyond the "hustling off to bed, out of the way," and the "keeping covered" which is a sort of "dim religious duty" kept sight of out of fear of the doctor's bill, rather than of any other consideration.

A LADY PHYSICIAN.

SENSE OF TASTE.—This sense is analysed in the following manner by Prof. Bain: The tastes in sympathy with the stomach are *relishes* and *disgusts*. Relishes are the agreeable feelings arising

from the kinds of food called savory, or animal food, and the richer kinds of vegetables. Sugar is both a relish and a taste. Relishes imply their opposite, disgusts, in which the stomachic sympathy is generally apparent, and which may be similarly characterized with reference to the corresponding digestive sensation.

Taste proper, comprehends *sweet* and *bitter* tastes. Sweetness is properly typified by sugar, whose presence imparts the sweetness of fruits and articles of food generally. This sensation may be called the proper pleasure of taste. *Bitter* tastes are exemplified in quinine, gentian, bitter aloes and soot. This, and not sourness is the opposite of sweet; it is the proper pain of taste, the state arising by irritating or unfavorably stimulating the gastric nerve.

In the third class of tastes there is present an element arising through the nerves of touch. Their prevailing character is pungency. They include the saline, the alkaline, sour or acid, astringent, fiery, acrid.

The saline taste is typified by common salt. It is neither sweet nor bitter, but simply pungent or biting, and in all probability the sensation is felt through the nerves of the fifth pair. In some salts the pungency is combined with taste proper. Epsom salts would be termed partly saline and still more decidedly bitter.

The alkaline taste, as in soda, potash or ammonia, is a more energetic pungency, or more violent irritation of the nerves, the pungency amounting to acute pain as the action becomes destructive of the tissue.

The sour or acid taste is the most familiar form of pungency, as in vinegar. The pain of an acid resembles a scald rather than a bitter taste. The pleasure derived from it is such as belongs to pungency, and must observe the same limits.

The astringent is a mild form of pungency; it is exemplified by alum. The action in this case has manifestly de-

parted from pure taste and become a mere mechanical irritation of the nerves of touch. Astringent substances cause a kind of shrinking or contraction of the surface, an effect imitated by the drying up of a solution of salt on the skin. What is called a rough taste, as tannin, is a form of astringency.

The fiery taste of mustard, alcohol, camphor and volatile oils is of the same generic character, although more or less mixed with taste proper.

AN EMOTIONAL EFFECT.—At a meeting of the French Academy of Medicine, Dr. Brown-Sequard related a very remarkable instance of the power of sympathy which came within his recent observation. A little girl was looking out of a window in a house in the Batignolles. The lower sash was raised and the child had placed her arms on the sill. Suddenly the support on which the sash rested gave way, and the window fell with considerable force on the little girl's arm, inflicting a severe bruise.

Her mother, who was in the room at the time, happened to look toward the window at the moment of the accident, and witnessed it. She fainted with fright, and remained insensible for a minute or two. When she recovered she was conscious of a severe pain in both arms; and on examining them she was amazed to find on each arm a bruise corresponding in position to that left by accident on the child's, though more extensive. Coming from a less accredited source, such a story would only provoke a smile of incredulity; but Dr. Brown-Sequard's position in the world of science does not permit of this summary mode of disposing of a statement for which he vouches.

DON'T CHECK PERSPIRATION SUDDENLY!—A Boston merchant, in "lending a hand" on board one of his ships on a windy day, found himself at the end of an hour and a half, pretty well exhausted.

and perspiring freely. He sat down to rest, and, engaging in conversation, time passed faster than he was aware of. In attempting to rise, he found that he was unable to do so without assistance. He was taken home and put to bed, where he remained two years, and for a long time afterward could only hobble about with the aid of a crutch. Less exposures than this have resulted in in-

flammation of the lungs—"pneumonia"—ending in death. Let parents explain to their children, the danger which attends the cooling off too quickly after exercise, and the importance of not standing in a draught of air after exercise, or of sitting at an open window or door, or pulling off any garment, even the hat or bonnet, or going in bathing, while in a heat.

NOTES IN SCIENCE AND INDUSTRY.

Automatic Machinery.—So far as well-built automatic machinery is attended, managed, and overlooked by the educated brain and the skilled hand, reproduction may be as nearly reduplication as anything in art can be; but automatic machinery is not necessarily exact machinery. Yet this erroneous belief is not confined to the inexperienced, but is shared, sometimes, by mechanics.

A contractor was seen overhauling the products of some automatic machinery and rejecting more than he approved. Inquiry revealed the fact that out of five hundred pieces of the same sort, produced on the same machine, only about fifty passed muster. If ever there were machines which were simply automatic and entirely self-operating, they are the machines for producing machine screws. All the apparent attention they require, as it seems to a shop visitor, is supplying the machine with bars or rods of metal and with oil. The machine is absolute in all its movements—there is no room for variation, except in the dulling of the cutting tools and the inevitable wear of all moving machinery. The machine takes the bar or rod, moves it forward, squares the end, turns the shank up to the head, threads the space between the end and the head, and cuts the screw off the bar, entirely finished, unless it be a screw with a slotted head. And yet these exact machines fail to duplicate absolutely; every day's product must be examined, and it is not uncommon to condemn one-fourth of the day's production. The most perfect machinery requires mechanical brains and skill to keep it in operating condition, just as these qualities were required to produce it. There is no intelligence in a machine; it may do rapid work, and when in order may do ex-

act work, but it can not equal the hand product of human skill, even in some departments of purely mechanical endeavor. A machine made watch is a good time piece; but it is not so good a watch as one hand made; the best machine made watches require the judgment of the brain and the skill of the hand to make them good. An engraver, with only the tools and appliances that have been the style for centuries, will make, on an average, eighteen hundred cuts or strokes per hour, and produce on twelve different articles a similar pattern conforming to the varying contour of the surfaces. No machine can do this; and if it could, it would have to be guided and controlled by brain and skill. "The thing made is not greater than its maker."—*Exchange*.

A Solar Cyclone.—Those who have looked through a large telescope under favorable atmospheric conditions at one of those immense cyclones which occasionally break out on the surface of the sun, have derived from what they saw a very good idea of the origin of sunlight. They have seen that the brightest portion of the surface of the sun consists of columns of intensely hot metallic vapors, averaging about three hundred miles in diameter, rising from its interior and glowing with extreme brilliancy, from the presence of clouds formed, probably, of shining particles of carbon precipitated from its vapor as the tops of the columns reach the surface and lose heat by expansion and radiation. (A good idea of such a precipitation is had, by observing the particles of water condensed from transparent vapor, in unusually high thunderheads, where the action is in some respects similar). Between these ascending columns are seen descending masses of cooler vapors,

rendered dark and smoky by relatively cool and opaque particles of carbon, all or most of the other elements being still maintained by the excessively high temperature in the condition of transparent vapor. In the immediate region, however, where the cyclone is raging, these bright ascending columns are drawn out horizontally by the in-rushing metallic winds (which often reach a velocity of a thousand miles per hour) into long filaments, pointing in general toward the centre of the disturbance, which is always occupied by a huge, black cloud of smoke (frequently twenty thousand miles in diameter) rapidly settling back into the interior of the sun. Over and across this great central black cloud are often driven long arms of the shining carbon clouds, which, when the cyclonic action is very strong, bend round into slowly changing spiral forms, very suggestive of intense action. A striking illusion, invariably connected with this sight, is that the observer seems to be viewing it from a position quite near the scene of the disturbance, whose minute and complicated details are seen with great distinctness.

Another European Tunnel.—

The principal project for a railway tunnel through the Simplon, by which it is intended to provide a shorter and quicker route for the eastern and northern parts of France and Western Switzerland to Italy, has been for some time past under consideration in the Swiss Federal Council. Its leading feature is a tunnel through the base of Mount Simplon. The cutting would be of the length of 19,900 metres or about twelve and a half English miles, thus making it the longest tunnel in the world. The expense of such an undertaking would, of course, be prodigious, and this fact has suggested a rival scheme, which was recently submitted to the Swiss Council. According to the latter project, a tunnel is to be carried through the mountains at a height of more than 5,000 feet above the sea level, and its length would only be 4,800 metres, or about three English miles. The approaches both on the northern and southern side of the tunnel would be by a line having a gradient of one in ten, which it is proposed to work by a toothed-wheel locomotive, capable of performing a traffic of 1,200 tons a day; whereas, according to the best estimates, the average would not be more than 740 tons. The rate of speed upon the approaches and through the tunnel is calculated at fourteen

kilometres an hour for passenger trains, and ten kilometres for goods trains, so that the length of the journey for this part of the line would be one and a quarter and two hours respectively. The number of trains passing daily in both directions would be sixteen, and the total cost of carrying out the latter and less ambitious scheme is estimated at not more than 14,000,000 francs, or \$2,800,000, about.

The French Anthropological School.—

In this institution there are six courses of lectures. M. Mathias Duval lectures on zoölogical anthropology, including comparative embryology and kindred topics. General anthropology is in the able hands of Dr. Paul Topinard, whose lectures will centre about the discussion of races and types. M. Manouvrier lectures on ethnology, giving special attention to normal and abnormal craniology. Medical geography, by which is understood the action of the environment, is the subject of a course by M. Bordier. The remaining courses are on prehistoric anthropology, by M. Gabriel de Mortillet; and on the history of civilization, by M. Letourneau. The lectures are held weekly, and, in addition, conferences are held from time to time. The course of lectures was begun on Nov. 9.

The Lamp as a Modern Development.—

From the earliest times until within about a century, the lamp remained much the same, consisting simply of oil and wick in some kind of a vessel. A complete revolution in artificial light was caused by the invention by M. Ami Argand, in 1784, of a burner with a circular wick. The flame was thus supplied with an outer and inner current of air. Argand was also the inventor of the glass chimney, as applied to his other lamp. The so-called astral lamps were provided with these circular wicks, the reservoir for the oil being arranged in the form of a hollow ring, enveloping the central stand that supported the burner. In consequence of the peculiar shape given to the ring, the lamp cast no shadow at a little distance off. An ingenious piece of clockwork machinery was devised by Carcel, in 1800, for pumping the oil from the reservoir at the foot of the lamp up to the burner, and thus supplying it always from the same point. This lamp, afterward slightly improved by others, was in many respects the most perfect of these contrivances, but its great cost prevented

its general adoption. A modification of the Carcel lamp, known as the Diacon, was long popular in this country. In 1787 Petér Keir made the great invention—since fully developed by Aronson—of raising the supply of oil by means of another fluid with specific gravity greater than oil. This fluid was generally a mixture of salt and water. The automaton invented by Porter, in 1804, was very ingenious. The lamp was suspended on an axis, counterbalanced by a weight, so that it hung level when full, but at an angle of forty-five degrees when empty, thus being fed evenly by the gradual ascent of the burners. In 1822 Samuel Parker made an important improvement—the fixing of French chimneys upon burners by means of metal supports. It is interesting to note that the most important recent inventions in lamps, are chiefly American.

A Famous Woman Farmer.—

A correspondent of the *Germantown Telegraph* gives a brief description of Mrs. Barney Newell, who is nearly seventy years old, and resides in Greenfield, Franklin County, Mass. Her husband died twenty years since, and left her with a farm of 140 acres, a part of it under mortgage. She is entirely alone, never having had children to assist her. She has kept the farm, paid up the mortgage, made repairs on her buildings, and, at the present time is hale and hearty. For the past ten years she has had her house filled with summer boarders, and all who once enjoy her hospitality are anxious to come again and bring their friends with them. At the present time she employs four servants, two on the farm and the same in-doors, except during the summer, when more help is needed in the house. Her barn is well stocked with nice cows, from which she makes, and sells for the highest price, her gilt-edged butter. She also keep poultry, having kept through the past winter 140 fowls, which she herself never failed to feed every morning. Last autumn, in October, a hen stole her nest and brought off sixteen chicks. She raised them all and now they pay her in nice fresh eggs. She has 200 hens and chickens all hatched the natural way. She keeps two horses and any number of all kinds of pet animals, who follow her around as she walks over her farm. I spent a pleasant day with her not long since and I said to her: "Why do you keep this farm and burden yourself with

all these cares and work so hard yourself?" Laughing she replied: "Oh, I am happy; I enjoy it all. It is mine own." And 'tis time that there is occasionally a woman who can take care of herself and manage a farm.

Uses of Cattle Bones.—The four feet of an ordinary ox will make a pint of neat's foot oil. Not a bone of any animal is thrown away. Many cattle's shin-bones are shipped to England for the making of knife handles, where they bring \$40 per ton. The thigh bones are the most valuable, being worth \$80 per ton for cutting into tooth-brush handles. The foreleg bones are worth \$30 per ton, and are made into collar buttons, parasol handles and jewelry, though sheep's legs are the staple parasol handles. The water in which the bones are boiled is reduced to glue, and the dust which comes from sawing them is fed to cattle and poultry.

WEATHER RHYMES.

"When a cow tries to scratch its ear,
It means a shower is very near;
When it thumps its ribs with its tail,
Look out for thunder, lightning, hail."

"When swine carry sticks,
The clouds will play tricks;
When they lie in mud,
No fear of a flood."

"When Tabby claws the table-legs,
She for a summer shower begs."

"When flying squirrels run on ground,
The clouds'll pass you by, be bound."

"The hen-hawk's scream at hot, high noon,
Foretells a coming shower soon."

Mexican Pearl Fishery.—Pearl fishing on the coast of Lower California is an important industry, no less than 1,000 divers being employed in bringing up the costly black pearl which is found in a state of great perfection in the deep waters of La Paz. The pearl oysters are found from one to six miles off shore, in water from one to twenty-one fathoms deep. Merchants provide boats, diving apparatus, etc., for the prosecution of the business, on the condition that they can purchase all the pearls found at prices to be agreed upon. These boats, which are usually of about five tons burden sail up and down the coast from May to November searching for treasures. The product of a year's work is about \$500,000, estimating the pearls at their first value.



FOWLER & WELLS COMPANY, *Publishers.*

H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK, JULY, 1886.

A CRIMINAL INSTANCE, WITH ITS SUGGESTION.

AN interesting incident in the life of Mr. Deville, an English phrenologist of the last generation, famous for his ability in reading character, was that of his examining the convicts on board of the ship "England," bound for Sydney. It was in the year 1826, and there were 148 of the "transports." An eminent surgeon, Dr. Wardrop, suggested the examination, and was so impressed by its developments as to declare his accession to the ranks of Gall's followers. Among the convicts was a man named Hughes, of whom Deville said to the ship's surgeon, Dr. Thompson: "He is a man of talent, and the greatest scoundrel on board the ship, and he will do you great mischief on the voyage. Keep pens, ink and paper from him, for he is a man who will be most likely to create a mutiny among the convicts." After the arrival of the "England" at Sydney, the surgeon wrote to Dr Wardrop, and in the course of his letter said: "Observe how Deville has hit off the real character of Hughes, and I will be

grateful to Deville all my life; for his report enabled me to shut up the malcontents and arrive here not a head minus, which, without his report, it is more than probable I would have been." Forewarned by Mr. Deville, a watch was kept during the voyage over those whom he had pointed out as dangerous and likely to make trouble, and it was discovered that in spite of the careful guard over him, Hughes contrived to make ink with iron rust, with which he wrote letters on tobacco papers for the purpose of inciting a mutiny among his fellow-prisoners. An account of the transaction is preserved in the government records at Somerset House, London. Hughes was subsequently tried and executed at Sydney for some crime.

This illustrates a practical use of phrenological science that should be made of far more account than it is. And many wonder at the indifference of the police and prison authorities to it. In the management of criminals, Phrenology is capable of producing the most happy results, not only as regards the welfare of the subjects of penal discipline, but also as regards the welfare of the community. It is a fact of general observation that men possess different powers of resisting evil influences, and, if through the systematic aid given by Phrenology we are guided to the organic reasons for these differences among men, we are also helped by the same means to discover methods by which temptations to the abnormal or vicious use of faculties may be avoided.

It is more due to improper adjustments in human relations than to special tendencies to an evil course that so many fall into sin; and if men as a rule under-

stood the nature of their organization and how the agents of evil worked upon them, the weakest would not be so likely to submit. Ignorance, because it leaves the faculties to a hap-hazard sort of action, is a potent instrumentality of error; but intelligence, a knowledge of the mental functions and of their connection with the body, through the brain, provides an armament that is efficient for protection. It is through this knowledge, which every one should secure, that man's capacity for avoiding error and sin may be greatly increased, and his faculties made to minister to balance of character and true usefulness.

IDEALISM IN PUBLIC DISORDER.

OUR labor disorders, with their horrible complications of riot and destructive lawlessness, are due largely to idealism. "What!" the reader may say, "do you mean to tell us that the unreasonable and exacting demands of classes of workmen, and the sanguinary threats of brutal socialists and rapacious communists have anything of the ideal in them?" Yes the leaders and thinkers who formulate the demands of workingmen, and inspire the declarations of "plunder loving" socialists, are inflated with exalted views of human equity and of the duty resting upon the rich and well-to-do to share their possessions with their poorer brethern. They believe in no inequalities of station by birth or acquisition. "A man's a man for a' that and a' that," is an inspiring shibboleth to them, and because one possesses more talent or skill to acquire money or property than another, is no reason that he should accumulate a fortune, and live in ease and comfort while the other

must toil on, poor and care-burdened to the end of his days. Society should not make what is an incident of birth a cause of injustice. The man of talent and skill happens to be born with his faculties of superiority, and it is not right that he should hold for his own exclusive gratification what his inherited advantages secure to him in the business of life. It is his duty to share with others, and if his selfishness would not do this, he must be compelled to do it. Sentiments of this nature are the texts for harangues that are often delivered with much noisy emphasis by "reformers" to audiences bleary with tobacco smoke and beer. A leading socialist remarked to me on noticing a wealthy man ride by in his carriage, "That man has no more the right to ride that way than you or I. What is he but a man? We are men and entitled to the same privilege."

"But Mr. ——— can afford to pay for a carriage, and so has the right to use it."

"No; he is able to walk, and should walk, and let those who are lame and feeble ride. Carriages were meant for the weak and sick; not for the strong. Only the selfish and indolent will ride that way, and in a well-adjusted state they would be compelled to walk."

"Very radical!" the reader will say. Yes, and not without reason in the absolute sense. But the views of these socialistic philosophers involve a grave fallacy, which they, for the most part, ignore. They are disposed to force them upon the community when they are altogether out of keeping with the state of civilization; are utterly impracticable in the present development of morals.

and intellect. Rousseau, Fenelon, Sir Thomas Moore and other dreamers of human perfection, borrowing much from earlier dreamers, impressed the social movements of a hundred years or more ago with ideas that cropped out most strikingly in certain phases of the French Revolution, and have since colored the writings and discussions of land, labor and social reformers who decry existing conditions as one-sided, partial and favorable to one class, and oppressive, obstructive and degrading to other classes.

Forgetting Nature's law of moderate progression, perhaps, for the most part, wanting in perception of the intricacy of the problem which they essay to solve, these socialist agitators would re-organize human affairs in a trice; at a single blow destroy the institutions and conventions of ages, and upon their ruins build the fabric of their dreams. Undismayed by the disorders that are the immediate outcome of an attempt to capture the outposts of the existing order of popular affairs, reckless of the stern defences of conservatism, and practically thrusting aside the plainest intimations of morality—although that is a very specious element in the “bill of rights” set forth in the pleas of social philosophers—the main body of these discontented, ill-placed, excited men would pursue their ideal to their own destruction.

A high object is worthy of one's zeal and effort; but unless reason and intelligence, and a due regard for moral principle govern the effort, no progress will be made toward its attainment. Agitation, intemperate demands, coercion, being the fruit of minds in which the

selfish feelings, passion and propensity dominate, will never bring about the realization of a purpose, however noble.

The improved state which the socialist visions, implies a higher mental condition than the average man now expresses, and that higher mental condition can only be reached by the slow advances of culture. Let the “reformer” study to formulate a method for the development of the mental nature to that degree of balance that selfishness, cupidity, vanity, ostentation, arrogance and love of rule shall no longer override and suppress kindness, courtesy, justice, duty, industry and friendship. We offer the science of Phrenology as an important aid in that meritorious undertaking.

MARSHALL HALL ON LOCALIZATION.

About forty years ago, Dr. Marshall Hall, an English physician of eminence at that time, and often quoted to-day as authority in the symptomology of disease, published a volume entitled, “Practical Observations and Suggestions on Medicine (Second Series),” in which he presented a plan of mental philosophy. It is interesting to note his classification and the physical seat of the faculties that he accepts. He writes:—

The faculties of the mind may be divided into; 1. The Intellect; 2. The Emotions; 3. The Desires, or Passions; 4. The Instincts. In connection with these I must enumerate; 1. Attention; 2. Impression; 3. Temper; 4. Pain; 5. Sleep. The first of these, or the *intellect*, is displayed principally in the faculties of; 1. Sensation; 2. Perception; 3. Judgment; 4. Volition. These are much modified by the exertion of *attention*, and by the influence of impressions; and

they are nearly, but not entirely, suspended during sleep.

In this brief summary of his plan of mind we note a combination of ideas metaphysical and physiological; the surgeon's experience added to the scheme of the old-time intellectual philosophy. Dr. Hall, like others of his time who wrote extensively on human physiology, and like most of the voluminous writers on medical subjects of the present day, deemed it expedient to propound some views with reference to the relation of the thinking principle to the brain. If such a digression is wanting in the clearness and definiteness that may characterize their dealing with topics more closely connected with their professional work, it may, nevertheless, find consideration with the majority of those who respect them as authority on medicine and surgery. Further on, Dr. Hall says:—

“The intellect seems to be seated in the upper part of the cerebrum. In proportion as the development of this is defective, the being is unintellectual—he is an idiot. The emotions are, I believe, seated lower down, and display themselves principally, I believe, along that part of the nervous system which I have denominated the *true spinal*, or excitomotor.”

The indefiniteness and guessing of the worthy doctor are apparent enough in his own language. It would seem that he had obtained his notions of localized function from some examination of the phrenological system, but unwilling to accept the brain mapping of Spurzheim, ventured something of his own that one might be inclined to call a travesty of the clear and convincing statements of the

phrenological writers. Where he meant to place the emotions is certainly far from definite, although we may infer from his allusion to “the *true spinal*” that he had in mind the *pons Varolii* or the *medulla*. Yet when we consider another statement of the distinguished author, we must confess to being quite in the dark as to his meaning. He says: “The desires and the passions are seated lower still.” Does he intend us to understand by this that he believes that the desires and passions are not only distinct from the emotions, but hold so intimate a relation to the body that they are situated in the spinal cord or somewhere in the organs of the trunk? If so, he is but reproducing notions of mediæval philosophy, when the stomach or the heart or the liver was designated as a likely place for the affections or passions.

How much Dr. Hall's conjectures with regard to the physical relations of mental faculties gained in the esteem of his many admirers we can not imagine; but evidently in physiological and anatomical exactness they are greatly wanting, and altogether out of harmony with his teaching in pathology and therapeutics. In his generation there were Broussais, Andral, Elliottson, Gregory, Andrew Combe and others who propounded a harmonious and well demonstrated physiology of the mind, why did not Marshall Hall profit from such worthy sources in the formulation of his scheme? Was his case but another of the frequent illustrations of the Virgilian apothegm,

Tantaene irae animis coelestibus?

THE INDEPENDENT ORDER OF GOOD
TEMPLARS.—The supreme head of this
body, known as the “Right Worthy

Grand Lodge," held its thirty-second annual session in the Hall of Delegates, Richmond, Va., from May 25th to 31st last. Over 150 delegates were present from all parts of the world, and important legislation for the good of the Order was accomplished. The Independent Order of Good Templars was organized in New York in the years 1852-3. It was the first temperance body that recognized the power of woman to accomplish social reform, and it admitted her to all the rights and privileges of membership on the same plane as man. It has grown in spite of a great secession which took place some years ago—until now it belts the globe, with its lodges, and numbers in its membership, hundreds of thousands.

Its platform is one of total abstinence for the individual and complete prohibition for the State, and while it is in no sense a political body, it seeks to influence politics by asserting that "none of its members can consistently support any party that is dominated and controlled by the alcoholic liquor traffic."

At the Richmond session a course of

study was adopted, which will undoubtedly accomplish much in training its members in an understanding of the various phases of the alcoholic liquor problem.

There can be no question whatever that Good Templary is destined to wield great influence in the next few years, and under the leadership of such a man as John B. Finch, its aggressive spirit may fill the brewers, distillers and saloon-keepers with alarm.

It has constantly a large number of able lecturers and organizers in the field, and is ready to extend help in any direction, whenever a local option or prohibition contest is on hand. Among these, a name well-known to the platform in some of our northwestern states is that of the Rev. G. W. James, which has been frequently seen in the pages of this magazine. Knowing the general character of the men and women who constitute this great order, and the principles that animate their actions we feel that their Strike deserves our support, aimed as it is at the root of the greatest evil in the land.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following

rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. *Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.*

5. *Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.*

6. *Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.*

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

ORIGIN OF OUR SALUTES.—K.—The origin of many of the motions by which courtesy is expressed among civilized people, is said to date no farther back than the age of chivalry. The bowing of the head, for instance, was simply an indication of an unarmed hand, and the offer of the neck to the stroke of his adversary's sword. In other words, it indicated submission or inferiority. The courtesy of a lady is but the survival of the old practice of entreaty for mercy when the suppliant went down upon her knees. Shaking hands was the "striking of hands;" a token of truce, in which the parties took hold of each other's weapon hand, thus making sure against treachery.

"OBSESSION."—J. P.—We are of opinion that those persons who profess to be suffering from "obsession," by which term we understand a vicious influence ascribed to evil spirits, are somewhat disordered mentally. It may be that some unfortunate social relation has occasioned the trouble, or some obstinate organic derangement which interferes with the proper nutrition of the brain and nervous system. If the life of these "obsessed" people could be regulated, so that their physical weakness would be modified or cured, we think that in the majority of cases the brain would resume its normal function and the hallucinations would disappear. A congested liver, or bowels, the coats of which are in a state of amyloid degeneration, may give rise to strange mental disturbances. Intelligent hygienic treatment is needed in such cases.

THE WILL, ITS NATURE.—G. N.—Our answer to this oft-repeated question must in

this place be brief. What the will is, has been debated at great length by the writers on mental philosophy and theology, and many opinions have been rendered. To-day there are two views that divide the great body of thinkers. One is that human action is governed by the strongest of the motives or faculties of the mind. According to this theory, the mind is as much the subject of law as physical things, and necessarily the strongest feeling or desire must control in conduct.

The other view is that a man's personality, his *ego*, is superior to all the motive powers within him, and gives him his character, of a *free* moral agent; and that whether or not he shows a freedom of choice—the power to subordinate all external influences, and to rule his own appetites and inclinations—he nevertheless possesses it as a natural or divine endowment.

Dr. Gall did not consider the will a single faculty with a special organ, as is evident in the definition he gives of it in the sixth volume of his *Functions de Cerveau*: "Will is not an impulse resulting from the activity of a single organ, or according to certain authors the feeling of desire. In order that a man may not limit himself to wishing, in order that he may will, the concurrent activity of several of the higher intellectual faculties is necessary; the motives must be weighed, compared and judged. The decision resulting from this operation is called will." It seems to us that this definition is more satisfactory on scientific grounds than either of the two views just summarized, and it goes far toward reconciling them. The will is evidently a different function from thinking and feeling, yet thinking is just as much a voluntary act as a movement of the body for some purpose. A writer on the subject is quite clear when he says: "When we will to think, or to move, we do not think of the special organs and their connections, or of the modes of operation by which our thoughts and movements shall be performed, but we merely will the event, and direct our attention to its production. Being conscious of possessing the power of doing or of trying to do what we wish to accomplish, we simply will to do it; we turn the steam on as it were, and the bodily machine moves as desired; but should either the steam (nerve force) or the machine be defective, the result will be defective too."

DIET FOR THE SEDENTARY.—*Question.*—I wish, Mr. Editor, that you would give me some plain directions on the subject of eating. I am confined in an office nearly all day, and find that I can not keep my stomach in good order. I am, in fact, out of sorts nearly all the time. My physician, although good in describing my condition, and giving me medicines for temporary relief, is vague and uncertain about what I should eat. Will you take the trouble to advise me, and, perhaps, others at the same time will be grateful to you. S. S.

Answer.—You should consider the needs of your organization, and study it so as to understand it. Eat for nutrition and for strength, not merely imitating others or following fashion. Make a good meal at breakfast time of food plainly prepared, without spices or condiments, and with but little butter. Oily, greasy food is heating to the blood and irritating to the nervous system of one whose habits are quiet and sedentary. You should eat brown bread, or bread made of "whole meal," that contains all the elements necessary to supply the waste of the tissue, especially of the bones and nerves. If you can have it properly made, it were better to eat unfermented bread. The true, unleavened biscuit, well-baked, is unsurpassed among bread preparations. For variety at breakfast you will find oatmeal, in the form of mush or porridge, or biscuit or pancake, very acceptable to the palate. So corn meal, hominy, barley meal and rice may be used. Dishes made of any of these cereals, supplemented with good fruit, constitute a breakfast which will meet the normal want of any appetite. An occasional bit of choice beef or mutton, boiled, baked or broiled, may add to the zest of the meal, but you do not need it. Avoid fried flesh; the process toughens the article, and, as it is usually done, a good deal of butter or lard and salt are cooked into its substance, rendering it difficult of digestion. It were better, if you are disposed to eat flesh, to have it at dinner, for reasons I shall give shortly. It is not in accordance with sound dietetic principles for one to drink during meals, for the excellent reason that it prevents thorough mastication and insalivation, and, as a consequence, the food goes into the stomach in an incomplete form. At the close of a meal it is proper to rinse the mouth with water. The quantity eaten must depend upon the constitutional state at the

time, but care will save you from over eating. A man who eats as he should, knows about when to stop; Nature has a way of signaling when her need is met. After breakfast a moderate walk is beneficial, promoting digestion and equalizing the circulation. A mile is sufficient, after which you can sit at your desk and attend to the duties of your vocation. Of course, you are not required to remain pinned to the desk all the time you are at your place of business. There are intervals when your attention is diverted and you are called away to consider matters which afford some variety of thought, and, perhaps, some exercise of body. This is usually the case with a clerkship, and it is well. A man or woman should not keep the mind bent upon one subject more than three or four hours at a time. Then a brief interval of diversion, a few minutes of desultory conversation or of exercise, especially out of doors, afford relief, restoring the mind's elasticity and preserving its vigor. Work while you do work with earnestness and thoroughness. Half-way work, a lack of spirited occupation, is really debilitating to the mental tone. Doing with the *might* seems to be in accordance with the precepts of health, as it is the best way to accomplish the highest results.

In the next number we shall add further suggestions.

TO CLEAN PLASTER BUSTS.—*Question.*—Please inform me, through the JOURNAL, how to clean a plaster bust and greatly oblige,

H. M. H.

Answer.—With white castile soap and water make a lather and apply with a cloth or soft brush. This will clean the bust, and after washing off and wiping dry with a white woolen cloth, you will find that the process has given the bust a nice polish. We say this on the authority of our Mr. Curtin, who has charge of the bust and apparatus department.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

Influence of Pictures.—A picture is invested with a spirit, a companionship which influences all who come into its presence. The spirit of a beautiful picture ed-

uates, refines, cheers and brightens all who behold it. While on the other hand, the spirit of a picture of any sin degrades, hardens the conscience, feeds the natural depravity of the soul. Look through your homes and carefully examine the art work which adorns or disfigures the walls. If you find one picture of any sin, remove it and consign it to the flames. Do not hesitate, on account of its value in dollars or cents; if allowed to remain it may cost a price which you would be unwilling to pay. Man is essentially an imitative creature. If a picture of a sin is continually kept before his eyes he will soon grow to be hard hearted, to say the least, and will be likely to commit a crime similar to the one represented by the picture. The scene represented by the artist is photographed upon the mind, and while the hands are busily engaged the thoughts are on it. The influence of a picture is subtle. Home is the place where character is formed, the place where a child receives its first impressions, and the first impressions are lasting. Then decorate your home with lovely pictures that will produce kind, loving, gentle thoughts. Portraits of the noble, true and brave inspire their beholders to do likewise. The motto, "Home, Sweet Home," influences its beholders to do their part in making home the dearest place on earth. Its companion motto, "God Bless our Home," rests like a benediction upon a household. Under its influence we become awed, subdued and reverently repeat its prayer. Who can go astray while asking for God's blessing. Give the subject more than a passing thought; its importance is great. Many Christian parents have unintentionally aided their sons and daughters on their way to ruin, by hanging upon their walls pictures which represent the crimes that are described even in the Bible. The pictures and the literature of a house are the index to the character of its inmates; they are twin sisters, and go hand in hand in the forming of character.

The illustrations which usually accompany pernicious literature cause as much harm as the perusal of the reading matter. The influence of that which is read is as great as that of association. Be as careful in selecting works of art and books as in the choice of companions. Choose only the pure, the good, the true and imitate their virtues.

E. J. SMITH.

"Saxe Holm" and "H. H."

EDITOR OF PHRENOLOGICAL JOURNAL.—I notice that by many papers "Saxe Holm's" stories are credited to "H. H." since her death; one authoress asserts that Mrs. Jackson confessed their authorship—she may have kept silent on the subject after the *real* "Saxe Holm" requested her friends to drop the subject. There are two bogus stories to which the audacious author affixed "Saxe Holm's" signature—the original uncorrected manuscript of "Droxy Miller," and several of her stories are *now* in the possession of the genuine Saxe Holm, who is the daughter of a prominent clergyman, and the wife of a New York merchant. She has written a very successful story under signature of her maiden name which was published by Harper & Bros. When the bogus stories appeared the lady was quite inclined to fight for her rights, but was persuaded from her purpose. Many New Yorkers are aware of the truth of this statement, but out of respect to the lady's wishes on the subject they have refrained from "speaking out."

M. A. L.

A CORRECTION.—In the last number an awkward mistake occurred. In the very readable biographical sketch of Bishop Tegner the "Frithyof's Saga" of that eminent Swedish poet is made to read "Trithyof's Saga" wherever mentioned, a capital T being substituted for F, the proper initial.

PERSONAL.

MR. JOHN KELLY, the famous political leader and Tammany "Boss," died lately, June 1st, at his residence in New York. He rose from the gutter almost, beginning life as a newsboy, then becoming an employé in the *Herald* office, later learning the trade of grate setter. Taking part in ward politics, his courage and muscular force won him prominence and office—even a seat in Congress in 1854, where he may be said to have represented the Roman Catholic Church, being the only member of that body. After the death of Tweed, with whose plans of fraud it must be said he was not in sympathy, he became the leader of the Tammany wing of the Democracy, and remained so until his death, at the age of sixty-four.

GEORGE WESTINGHOUSE was a poor young man, but with the invention of his well-known air brake for railroads, he found

wealth and honor. He is one of the most prolific inventors of the age, highly skilled in theoretical and practical mechanics, and also a thorough electrician. He expends an ordinary fortune every year in experiments necessary to the perfection of his inventions. He has been knighted by the King of Belgium as a recognition of his services to the world.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

Even now in passing through the garden walks

Upon the ground I saw a fallen nest,
Ruined and full of rain; and over me
Beheld the uncomplaining birds already
Busy in building a new habitation.

—*Longfellow.*

Whoever is sensible of his own faults
carps not at another's failing.—*Persian*
(*Saadi*).

To form a correct judgment concerning
any doctrine, we should rather look at the
fruit it bears in the disciple than in the
teacher.

A really cultured woman, like a really
cultured man, is all the simpler and less ob-
trusive for her knowledge: it has made her
see herself and her opinions.

All perfection in this life hath some im-
perfection mixed with it; and no knowledge
is without some darkness.—*Thomas à Kempis.*

You may plant the bitter cucumber in a
bed of sago, and manure it with honey, and
water it with molasses, and train it over
sugar canes, but when it is cooked it will
still be bitter.—*Malay Proverb.*

Then I read this lesson to my heart,

Men ever will reap just what they sow;

Time bringeth up with its mother-art,

Only the kind we set to grow;

It may be right, with its better part—

It may be wrong, but the end will show.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

"My dear, how is it that you are always
behindhand with your studies?" "Because
Sir, if I were not behindhand with them I
could not pursue them."

A little girl was walking on the street the
other day, when she saw a very bowlegged
man with a short coat on. "Oh, ma!" she
cried, "there's a man with a tunnel under
him."

Visitor (in penitentiary): "What brought
you to this place, my friend?" Convict:
"Sneezing." Visitor: "Sneezing?" Con-
vict: "Yis sorr. It woke the gentleman
up, and he nabbed me."

Nervous old lady boards a train, (and
when seated), discovers a horrid man by
her side, with a gun. "I hope that thing
is not loaded." Sportsman—"Yes, ma'am,
it is. However, I will insert this cork in
the muzzle. There!" The lady is quite
satisfied.

The average age of a hog is only fifteen
years. Console yourself with that thought,
whenever you see a man or woman spread-
ing over four seats in a railway car.



In this department we give short reviews of such
NEW BOOKS as publishers see fit to send us. In these
reviews we seek to treat author and publisher satis-
factorily and justly, and also to furnish our readers
with such information as shall enable them to form
an opinion of the desirability of any particular vol-
ume for personal use. It is our wish to notice the
better class of books issuing from the press, and we
invite publishers to favor the Editor with recent
publications, especially those related in any way to
mental and physiological science. We can usually
supply any of those noticed.

DASHES OF VERSE.—By Mrs. S. L. Oberholt-
zer, author of "Hope's Heart Bells," etc.;
12mo, pp. 152; price \$1.25; Philadelphia:
J. B. Lippincott Company.

We have tasted the flavor of this author's
other books, and are prepared to receive
more of the same sort. We know that her
poetry must be sprightly, cheerful and
sweet to be at all in keeping with those
bright Spring flowers of thought, "Come for
Arbutus" and "Hope's Heart Bells." Will
it be a breach of confidence to tell that Mrs.
Oberholtzer lives and breathes most of her
life where nature lights up the earth with
the beautiful in foliage and blossom, and
furnishes hints of the ideal in mountain slope
or wind blown wave? Her work shows the
trend of her sentiment and sympathy. She

feels for the sick, poor, oppressed and longing. She longs herself for the better time when kindness, justice, duty will rule among men, or when public evils, at least, will be suppressed for the sake of public decency and private weal. She is kind and tender in her thought for the weak, and wonders that society is not so for its own sake, that all may grow together into a better condition. In one place she says :

“ Good nature is the common oil
Required for every movement ;
It lightens motion, stirs the cogs,
And hastens all improvement.”

In another :

“ The beautiful flower of kindness
Sheds a perfume rare and sweet ;
Its petals fall as snowflakes
Of rest 'round weary feet.”

Poems for various occasions, birth memorials, death remembrances, hymns, souvenirs of visits, apostrophes, pleasing rhymes for little folks, these are among the variety found in the collection. Without attempting anything of an ambitious character, Mrs. Oberholtzer knows how to touch the heart, and in gentle tones express its inner sympathies.

THE BRIDLE BITS, a Treatise on Practical Horsemanship. By Col. J. C. Battersby, late First N. Y. Calvary. Illustrated, 12mo, pp. 143 ; New York, O. Judd Co.

An appropriate title, for an instrument powerful for government and torture the bridle bit certainly is, and these two features of its use in the training of the horse are prominently set forth in the book. Tender consideration and respect for the horse is the impression that the author seeks to make, while he shows how proper mouthling and training will render a horse more serviceable to his owner.

The book is a summary of personal experience, at once descriptive of the different methods in use abroad and at home for educating horses to the saddle, and illustrating the evils and virtues of the various kinds of bits that have the favor of the English, Irish, South Americans and our own people for military and civil purposes. His hints and counsel all lead to the focal thought that kindness and intelligence will secure the best results in the management of a horse.

DAVE MARQUAND.—By Annette L. Noble, author of “ Rugby Court,” “ Miss Janet's Old House,” etc. 12mo, pp. 357, cloth,

price \$1.25 ; New York, National Temperance Society.

The average temperance story does not involve a high quality of literary talent, but rather an earnest conviction of the wrong of the liquor traffic, and a tender sensitiveness to the wretchedness of its victims. A little observation supplies abundant material to illustrate the text, “ Who hath woe ? who hath sorrow ? ” etc., and a little practice with the pen, enables one to put the case into readable shape. But now and then we happen on a zealous friend of reform who can weave the moral of an intemperate career into a really attractive story ; who can describe with the vividness, peculiar only to a gifted student of character, the phases of temptation, weakness and degradation that a drunkard's career presents, and environ them with a coloring of impressive incident. We think the author of “ Dave Marquand ” one of this latter class. She exhibits a special talent in portraying boy character, and her stories, therefore, have a special fitness for the young. This new story describes a boy born amid trials, and ill-treated by father and step-mother, finally runs away from home. Befriended by excellent people he grows into a vigorous and useful manhood.

HANDBOOK OF ANTHROPOLOGY.—By Edward P. Thwing, M. A., Ph. D., Pres. N. Y. Academy of Anthropology, etc. Vol. 1., 16mo, pp. 80 ; price, paper, 25 cents. ; cloth, 40 cents.

The subject of anthropology is a large one, as its name implies. Everything relating to human nature belongs to it, and important branches of science, like physiology, psychology, archæology, hygiene are but sub-divisions. A series of brief treatises is in contemplation, each of which shall be devoted to a review of the essentials of certain of the anthropological sciences, in such a manner that a student shall find it a practical help in his course. The present volume takes up anatomy, physiology and psychology, and answers questions that are being constantly asked by people who have become interested in them. Considerable space is given to an exposition of hypnotic phenomena that are attracting more critical attention than has ever before been accorded them. Dr. Thwing has had exceptional opportunities for observation in this line, and discusses the questions that have been pro-

pounded by inquirers in a clear and definite style, supplying hints and suggestions that are fresh and practical. Copies are supplied by the Secretary of the Academy, at his office, 753 Broadway, New York.

THE GEM PORTRAIT GALLERY, with a Biographical Handbook. Published by S. Swaine, Rochester, N. H.

On a piece of cardboard, about twenty inches square, Mr. Swaine has grouped the faces in photographure of over one hundred and eighty of the world's distinguished men and women. Every department of science, literature, art and industry has been compelled to supply representatives, thus making a collection that affords one an interesting study for a leisure minute, or an hour or two. The handbook contains brief sketches of the subjects portrayed, and with its annex of prose and verse, brief selections from the wisdom and humor of later English literature, forms a useful book for home reference.

PUBLICATIONS RECEIVED.

THE MAGAZINE OF WESTERN HISTORY for May is a bulky issue, containing several biographical sketches of prominent gentlemen, for the most part residents of Ohio and Michigan, among them Mr. Matthew B. Taylor, Drs. J. W. Scott and J. B. Harman, D. B. Duffield and others. Handsomely engraved portraits from steel illustrate the pages. Published in Cleveland, Ohio. \$5.00 a year.

JOURNAL OF THE TRANSACTIONS of the Victoria Institute, or Philosophical Society of Great Britain, Fourth part of Vol. XIX. This is notable especially for its discussion of human responsibility in a well considered essay by the Rev. G. Blencowe, and a paper on the worship of the American Aborigines; also a note on Comparative Religions, and Reports of Discussions at the Sessions of the Society.

THE CENTURY gives its June readers a fine portrait of Benj. Franklin, well written and well engraved descriptions of some Thames scenery, of several American country houses, of Harvard's Botanic department and of Bird's Eggs. Four articles on War Topics relate to incidents of importance in the record, viz.: "Stonewall" Jackson in Maryland, Harper's Ferry and Sharpsburg, the Invasion of Maryland, An-

tietam Scenes—all these are well illustrated. The miscellaneous services in the back part are fresh and appetizing. New York.

THE HOMILETIC REVIEW in its June number has papers on "Probation after Death," "The Reformation and Rationalism," "How the Ministry may be More Effective," "Prison Reform" and Sermons on the "Great Motive for Living," "The Seasons," "Conscience and God," "The Labor Question," and other topics. As a practical summary of religious work and illustration this number has not been surpassed. Funk & Wagnalls: New York.

LIPPINCOTT'S MONTHLY MAGAZINE.—The June number is largely devoted to the labor question. "The Industrial Republic" attempts to show that the laboring classes will get a larger share of the fruits of their labor than they do now. Martin Irons writes: "My Experiences in the Labor Movement." "Some Experiences of a Working Girl" is an appeal on behalf of the ill-paid factory girls. "The Experiences of a Street Car Conductor" is also noteworthy. "A Plea for the Spoils System" and "John Turner's Invention" are other topics of interest in their way.

THE MAY NUMBER OF THE NEW ENGLAND MAGAZINE is a handsome one. A fine article on Trinity College is illustrated; "New Bedford," which reads almost like a romance, has twenty-six illustrations; "The American Educator," "Judicial Falsification of History," "Romance of King Phillip's War" two other historical stories and other matters constitute this fresh issue of a good representative of New England literature. Boston, Mass.

CATALOGUE of the Eureka Incubator and Brooder, manufactured by J. L. Campbell, of West Elizabeth, Pa. The enterprise of Mr. Campbell, and that of many other inventors of artificial methods of hatching eggs, shows the growth of the poultry interest in this country during the past ten years. Price five cents.

HARPER'S MAGAZINE for May contains a handsomely illustrated article on the United States Navy in which the writer shows the defects, and weaknesses, and possible merits and capabilities of our armed ships. "Through Cumberland Gap on Horse-back," is a very interesting bit of picturesque description. "A Lump of Sugar" is an account of one of our most important indus-

tries; the illustrations of that prominent object in all large cities, the sugar refinery, are faithful. In the "Editor's Easy Chair," and "Study," and "Drawer" a variety of items attract the reader's notice.

THOMAS BROTHERS' MUSICAL JOURNAL continues to present the subscriber with its usual variety of select compositions and literary notes.

UNIVERSITY OF PENNSYLVANIA Catalogue Announcements, 1885-86, Department of Biology, and the auxiliary department of medicine. Provision is made for advanced instruction for those students who desire to remain in the university after their graduation from the ordinary departments. Looking at the fees demanded, we are struck by the comparative largeness of the sums mentioned for particular or special courses. But the time will come when our institutions of learning shall be more nearly modeled after foreign patterns in the matter of courses and the expense of their attendance.

DIGEST OF LAWS, governing the issue of municipal bonds. Published by S. N. Kean & Co., bankers, Chicago. A pamphlet for reference, useful to business men and private investors, furnishing in brief, practical knowledge of the laws of States relating to the issue of their securities. Messrs. Kean & Co. have prepared this pamphlet to meet a want. The extracts given are from the laws of Ohio, Indiana, Illinois, Nebraska, Iowa, Michigan, Wisconsin, Minnesota, and Dakota Territory.

POPULAR SCIENCE MONTHLY for June has on its fly-leaf a strong face, a positive mental expression, with the name under of George Engleman, a distinguished botanist, well-known to students in that field, and who died in February, 1884. The other topics include "An Economic Study of Mexico," "Primitive Clocks," "Factors of Organic Evolution," "Counting Unconsciously," "The Principles of Domestic Fire-places," which are interesting papers. The editor discusses the labor troubles from the practical side, and points out some fallacies that color opinion among the better class of society.

OGILVIE'S POPULAR READING, No. 30, adds another to the rather long list of folio volumes, containing each, several complete stories by popular authors. Price 30 cents. Ogilvie & Co., New York.

CURRENT EXCHANGES RECEIVED.

Scientific American: Always practical and clear in its consideration of scientific and industrial matters. Munn & Co., New York.

The Chatauquan: Well adapted to its purpose in connection with the work of the "Chatauqua Idea." T. L. Flood, D.D., Meadville, Pa.

The Therapeutic Gazette: Full in its examination of new medicines and late progress in therapeutics. George S. Davis, Detroit, Mich.

Notes and Queries: If you wish to know something about the odd and out-of-the-way, ask your question through this monthly, and you will probably get an answer in due time. Manchester, N. H.

Stenography: A new monthly in the short-hand line. \$1 a year. Boston.

Thompson's American Bank Note Reporter, March and April numbers. Old and reliable. New York.

The Eclectic Magazine of Foreign Literature for June, shows the usual good taste in its selections from the best writings of foreign authors. E. R. Pelton, New York.

The Commercial Travelers' Railway Guide, &c., complete for New York and the New England States. Nickerson & Co., Boston.

The Missionary Review: May and June, contains personal reports and reminiscences from workers in foreign lands. R. G. Wilder, Princeton, N. J.

American Inventor: Devoted solely to industrial interests. Cincinnati, Ohio.

Mind in Nature: Considers matters of a psychical character in the main. Cosmic Publishing Co., Chicago.

Mental Science Magazine and Mind Cure Journal: A new representative of a growing sentiment. Chicago.

Building: weekly. Useful, handsomely illustrated. Comstock & Co., New York.

Paper and Press: Organ of the paper and printing trades. Philadelphia.

Harper's Bazaar: A popular journal of fashion, but with a bias toward the side of usefulness and propriety. Harper Bros., New York.

Zymotechnic Magazine appears to give more attention to advocacy of the liquor trade than to the subject of its title. Yet zymotic elements are far from wanting in the common alcoholic beverages. Chicago.

Problems of Nature: Vigorous and well entitled to claim notice for originality with a spice of oddity. Monthly. New York.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 83. 1886.

NUMBER 2.]

August, 1886.

[WHOLE No. 572.]



THE LADY OF THE WHITE HOUSE.

It is no longer a matter of news, as "all the world and his wife" have been made aware of the fact that Grover Cleveland, President of the United States of America, has taken to himself a wife. Being debarred by the daily press, the weekly press, the telegraph, the cablegram, and general gossip from the pleasure of making the announcement of the marriage, the PHRENOLOGI-

CAL JOURNAL accepts the situation and uses the privilege yet remaining of paying its compliments to the bride.

In the February number, 1882, and in the August number, 1884, a portrait and sketch of Governor Cleveland appeared, and of the "Democratic Candidate;" consequently, it is not from lack of courtesy that we do not again introduce him to our readers.

The newspapers have vied with each other in giving currency to many details concerning the ante-marriage relations of the "high contracting parties," stating little that was authentic and much that was the product of conjecture and assumption. The marriage of a *de facto* President, while an occupant of the White House, seemed too rich an opportunity for the newsmongers; it was something to be dealt with in the broadest manner, and all the resources of reportorial skill were exhausted in filling columns day after day with talk about it, and no realizing sense of the offensive, indelicate and impudent character of many of the personalities that found their way into type seems to have been entertained by the enterprising journalists who penned them.

The following account, which has been drawn mainly from a Buffalo newspaper, is considered trustworthy, as furnishing some of the leading facts of Mrs. Cleveland's life, and which it is no breach of decorum, we think, to give to the readers of the PHRENOLOGICAL.

Frances Folsom, now Mrs. Grover Cleveland, was born in 1864, in Buffalo, N. Y. As a child she attended Mme. Brecker's French Kindergarten. When about eleven years old her father died suddenly by an accident. Mrs. Folsom and Frank, as the girl was called, were at that time in Medina, and after the funeral resided in that place, where Mrs. Harmon, Mrs. Folsom's widowed mother, lived. The Harmon family had a good social position and owned considerable real estate, including milling property.

Returning to Buffalo a few years later

Miss Frank entered the Central School, and she and her mother boarded with Mrs. Jonathan Mayhew. One of the Central School teachers has said of her that Frank learned very rapidly, and seemed to remember equally well, and that she "always put a little of herself into her recitations." While enrolled as a pupil at the Central School her name used often to get transferred to the boys' lists, and so, in order that it should appear less masculine, she temporarily inserted an initial C in her name. This explains why her name now sometimes erroneously appears with that initial. She was a regular attendant of the Central Presbyterian Church, of which she is a member. Her mother occupied Mrs. R. D. Boyd's house, on Franklin Street, and from there Miss Folsom went to Wells College, at Aurora. Her Central School certificate admitted her to the sophomore class at Wells College, which she entered without preliminary examinations in the middle of the school year. Miss Folsom was a great favorite at Wells College. Her tall, commanding figure, frankness, and sincerity made her the queen of the school. She was graduated from Wells in June, 1885, her graduating essay taking the form of a story. The hampers of flowers sent to her nearly every week, beginning about the second year of her college life, from the Executive Mansion at Albany, and the particularly abundant supply that came from the White House conservatories when she was graduated, were only one of the many little attentions paid her, the knowledge of which her college mates spread abroad on scattering to their distant homes for the summer vacations, thus exciting much public gossip.

Miss Folsom had always been in the habit of spending her summers in Folsomdale, Wyoming County, two miles out of Cowlesville, at the residence of her late grandfather, Colonel John B. Folsom. It is a typical homestead—a rambling farmhouse set down amid the

lovely scenery of the valley. Her mother's income has always been ample for their support, and any extra funds needed were always to be had from the grandfather, or "Papa John," as Frank called him, and whose recent death will make her the heiress of a goodly property.

The lady's character is that of an unspoiled, ingenuous girl, full of self-possession, and with too much common sense to be overcome by her sudden elevation. Her chief characteristic is intense loyalty to her mother, who is a charming woman. Her life has had its deeper side. She is old for her years. One of her accomplishments is a rare gift for letter-writing. In dress her taste is very simple. Outside of a very limited circle of intimate friends, she is little acquainted in Buffalo, and had never mingled in society there because since she was a school-girl she has never spent more than a day or two at a time in Buffalo.

From the portrait we infer that Mrs. Cleveland possesses an excellent physical constitution; that she is symmetrically proportioned and stronger than the average of American women. The general contour of the head and the expression of the features show more than average power of mind, with readiness of impression and capacity for high development. There are indications of liveliness, vivacity and resilience; frankness of expression with capacity to talk well; spirit and ambition with firmness of temper; desire to know with will enough to carry investigation to a definite result; sensitiveness with power of restraint and a high degree of self-poise. Mouth and nose certainly indicate refinement; the former is beautifully chiseled, at once tender, affectionate and proud. The intellect is largely derived, we think, from her father; it appears to be for the most part constituted of the practical organs, giving her understanding of facts and an excellent memory of details.

Her complexion is fair, bordering on the blonde type, the hair being a medium between light and dark, while her eyes are of a dark blue. She combs her hair back from the brow, leaving some short tufts to cluster in a rather independent, one might almost say wilful, way around the forehead. The eyebrows are rather heavy and almost meet, imparting a deeper hue to the full, animated and beautiful eyes beneath.

Every man is the better for judicious marriage; and statesmanship is never impaired by the counsels and comfort of a good wife. If Mr. Cleveland waited until he had reached middle life before marrying, that is his own affair; and it is to be expected that in taking a wife when he is nearly fifty years of age a man is likely to be influenced by wise motives, especially a consideration of his own and the lady's happiness. One marked feature in this affair, which has pleased us greatly, is the sterling good sense exhibited by all the participants in the wedding. The brief wedding journey, the simplicity and modesty of the arrangements in general might well command the esteem of sensible people everywhere. Is it too much to hope for, that so conspicuous an example may prove contagious and the sacredness of marriage become again paramount to the bridal trousseau, presents and guests?

TO THE NEWLY-WEDDED.

All hail the newly wedded pair!

Give them fair words, wishes of hearty cheer;

With kindness greet our Nation's bride,

Unworthy strife, and party hate, aside!

On that young head wreath flowers sweet,

And joyful welcomes fail not to repeat.

Ring bells, on land and sea ring out,

In merry concord with the people's broad-
'ning shout.

Frances, thy bright and happy face

Lights up our nation's hall with charming
grace.

In paths serene be thy clear way,

And shadows ne'er obscure thy sunlit day.

D.

ROGER WILLIAMS.

ROGER WILLIAMS was a true moral hero, whose life was a blessing, not only to his day and generation, but in aftertime to the world.

He claimed not only for himself but for all mankind the full and complete liberty of conscience, or, as it has been termed "Liberty of the soul." Mere *toleration*, or expediency, he would have nothing to do with, nor were his labors in the interest of mere political or private gain, for all the actions of his life disprove anything of a worldly nature or desire for vulgar renown. Sometimes when a man has unselfishly labored for the triumph of a grand moral idea the world, although it appreciates the idea, will depreciate the person by whose efforts the same was brought about; and frequently we hear the remark "that he was wiser than he knew." Roger Williams was ever ready to sacrifice himself for a noble idea, and often risked his life in order to advance the principles of soul liberty, and with great judgment as well as sacrifice did he labor in the cause; it therefore seems an insult to his superior intellectual development to imply that he did not fully appreciate that for which he so faithfully and judiciously labored. The very fact of his appreciation and mastership of the idea is what sustained him in all his trials, or the idea mastered him, consoled him in adversity and cheered him in the loneliness of the wilderness.

We first hear of Roger Williams as an immigrant from the old country. In connection with others he had sought the shores of the new world, where he might enjoy a larger liberty than was allowed at home. He first settled at Salem, in the Colony of Massachusetts Bay, and being a minister, he was called to preside over one of the churches there. So far as a generous religious belief was concerned he evidently was not alone, for there were some who were ready to "hear the word," and glad to hear such

larger liberty advocated. But these were in the minority. The majority, or perhaps better, the more powerful, were bitterly opposed to it.

Roger Williams, however, persisted in advocating the advanced idea. The very fact that he had hearers, and that the idea had friends is proof that he was not entirely alone, although but the one bold person to advocate the idea publicly. By the local authorities he was ordered to cease the preaching of such a doctrine. But he stood on too high a platform to be affected by the narrow and bigoted minds who sought to obstruct the truth. Those in authority were powerful enough to prevent his further preaching in that community, but they were not powerful enough to prevent him from laboring altogether as he would. They could drive him out into the wilderness, but they could not force him to renounce his principles. With the Psalmist he could say, "They prevented me in the day of my trouble, but the Lord sustained me."

When he fled from Salem he went toward the south-west, to the borders of the Seekonk, or upper portion of Narragansett Bay. The Governor of the Plymouth Colony, not wishing to offend the "Bay" or Salem people by harboring Williams, or allowing him to remain in what they regarded as their territory, sent word for him "to remove to the other side of the water;" *i. e.*, to other side of the Seekonk River. He crossed the stream in a canoe. In looking for a landing place a large flat rock projecting well beyond the high-tide line caught his eye. A number of Indians were near the rock. This, however, did not deter him from landing. He evidently had no fear of the savage.

The well-known tradition of the red man is that he never forgets an injury or a kindness done to him. Williams had been kind to the Indian. He was one of the few white men whom they re-

spected and loved. When he neared the shore his soul was cheered by the most cordial greeting the red man knew:—"What cheer, Nétop," or "Welcome, friend."

The powerful tribe of the "Pequods" conceived an alliance with their ancient enemies, the "Narragansetts," for the purpose of exterminating the white man. Williams was informed of this plot. To a man of low nature it would have been a fine opportunity for a most complete revenge on the Massachusetts Bay Colony, but, instead of any spirit of revenge lodging in his mind, he exerted himself to the utmost to save the colony from the vengeance of the savages, and his labors were most successful. The colonies were saved; yet they seemed not at all grateful toward him for so great a favor. They little dreamed how the name of this man would go down to posterity, and how his noble and generous actions would compare with their lack of kindness and charity in his treatment. His enemies have endeavored to represent him as quarrelsome, and as one difficult to associate pleasantly with. Unfortunately Mr. Williams sometimes offended those who would have crushed him and the ideas he contended for, but we do not hear any such story from the red men, or from those with whom he lived at the time of his death.

It is to be regretted that no portrait of this great, good and just man was preserved. In those rude times it was a most difficult thing to procure a portrait, at least a portrait of value. The statue in the rotunda of the National Capitol is an ideal. But whether an ideal or not, we are glad to see such a man thus honored.

On the plot of the City of Providence, years ago, was marked, "Roger Williams' Burial Ground." No attention was paid to it, and there was little or no external evidence of a grave. About twenty years since, one of his descendants, an ancient Quaker, of Providence, who had carefully guarded the marked

spot, had the remains exhumed, and for two or three days they were exhibited in one of the public halls of the city. A few decayed and aged-looking bones were all that was visible, and all that remained for our eyes to see. Roger Williams had been dead nearly two hundred years.

Up to within about twenty-five years the scenery about the landing place of Roger Williams on the "Seekonk" had remained undeseccrated and about as it must have been in 1636. But some where between 1860 and 1865 a change came. The land in the neighborhood had been divided into house lots, and people began to build. The result was, from the grading of streets and other other causes, that the steep and natural banks of the river were modified, and the rock so encroached upon that it came near being buried out of sight. Some of the citizens, however, were thoughtful enough to prevent the total destruction of the now sacred rock, from where was first uttered the kind Indian welcome, "What cheer, Nétop." A square of ground was reserved and large portions of the rock blown off and piled up therein for preservation.

It was the kindly greeting of these savages, after the harsh treatment of his white kindred, that suggested to him the name "Providence," which he gave to the new settlement beyond the river. Being a just man, he bought the land and paid the Indians for it. This in itself was a noble act; it showed that he recognized no right of conquest, or the right (?) and might of the sword, but considered the Indians lawful owners, and the only persons from whom he could receive a just title.

In Roger Williams we have no mere enthusiast or weak person, but an earnest, able, practical, and judicious reformer. He was a statesman as well as a moral reformer. He was fortunate in his length of days, yet this was in spite of the sacrifice he had made, and not in any way the result of it. One of the most pleasant things to remember in regard to him, is that he lived to see the triumph of better days, to see his idea as firmly established as the rock on which he had landed, and to live in peace and ample prosperity to a good old age.

ISAAC P. NOYES,

Of "Ye Providence Plantations."

FAMILIAR TALKS WITH OUR YOUNG READERS.—NO. 8.

FORM AND BENEVOLENCE.

YOU may think, my young friends, that this topic can not be very interesting, because the matter of form is so common. Yes, it is common, a quality that must belong to everything we have to deal with. It is one of the primary qualities of substance, and if a person lose his sight and must use his

the articles by which he was surrounded, although they had been constantly used by him? No; not unless he was permitted to touch them one by one. But his eyes would soon come to know them, or, rather, through sight his perceptive faculties would be informed of them, as they had been informed before through the sense of touch.

The organ of Form is given a central place among the perceptive, as if nature wanted us to recognize its importance. It lies just below the inner side of the organ of Locality, in the same general fold of brain substance, and when large there is a wide, archiform appearance to the ridge over the eye at its inner angle, and the eyes appear set widely apart. An engraver has sent me a portrait of Alfonso, the young king of Spain, whose troubled career and early death com-



MISS B.—. FORM LARGE.

fingers to learn about things, it is by their form that he is chiefly enabled to distinguish them. You know that the eyes must be educated to note differences just as much as any of the other senses. When we see a thing for the first time we have to be told what it is, and some objects may be so much alike that we must study them some time before we are able to see wherein they differ. It is very likely that most of you would have to spend a good deal of time among bees to be able to tell their different species at sight, as an experienced bee-keeper can. To me, now, bees look pretty much all alike, because my faculties of Form, Size, and Color have not been exercised on bees.

A blind man is accustomed to “see” through his fingers; touch gives him the idea of shape. Now, suppose one who had been blind from childhood to have his sight restored suddenly, do you think that he could give the names of



ALFONSO, OF SPAIN.

mand the sympathy of all who know the history of unhappy Spain during the past ten or twelve years. This organ is

large, and well shown in the portrait, and, I have no doubt, did we know his intellectual peculiarities, we could say that his memory of shape was excellent.

How much people differ in this faculty, common and necessary as it is in everything that we do! You know that some never forget a face that they have seen once, while they may forget the name of a person almost the next minute after they have heard it. King George III., although a very irritable and obstinate man, was very popular among the English people, because he could recall everybody he had met. If you have seen a portrait of him you may remember that

work. Some, however, show a great deal more talent in drawing than others. Portrait painters and "figure" painters, as they are called, because they make pictures in which the principal subjects are men and women, must have Form well developed to be skillful and successful. I know artists who make very pretty pictures of scenery, hillsides, meadows, streams, rural houses amid trees, etc., because they can use colors well, and produce charming effects that way, but their drawing is poor. You look closely at their pictures and you are surprised to see how poorly done single objects are. A house will be a



THE SCULPTOR AT WORK.

his eyes are wide apart, and his nose appears to be very thick at the root. This shows large Form. At school some of your companions seemed to write nicely without an effort; they would make the letters of even height and regular, and easily take the prizes for handwriting, if they tried for them; while others seemed to have stiff, awkward fingers that could not be trained to make smooth and nice lines.

Artists, painters and sculptors, need large Form to produce fine, accurate

mere patch of white or gray with small splashes for windows. What at a little distance looks like cattle, or sheep, or men, when you are close are only little spots of different colors. The sculptor, however, must have good Form, because his work depends almost entirely upon that quality for its effect. And all great sculptors show it. Michael Angelo, Hiram Powers, Canova, the late Clarke Mills, Harriet Hosmer, Page and Spring had or have it well marked. If you think that you would like to be an archi-

tect, and design great buildings, public works, lay out parks, and so on, just look at your forehead and see if your eyes are set well apart, and if the ridge at the beginning of the nose appears full and broad. If that is the case, and you have some mechanical ingenuity or "gumption" besides, I think that you can safely undertake to study architecture.

Our best mechanics have the faculty large; they must have it to "work by the eye." Those slow, clumsy fellows,

signify well wishing, so that the benevolent person wishes well for others. Now, most of my young friends who have not had much to do with the world, have not been compelled to go away from nice homes and work for their own living probably think that it is an easy thing to wish good for other people. Well, it is easy enough merely to wish, but when we come to talk about this organ of Benevolence we must look at it on the practical side, and consider what it really does in the conduct of



A CHEERFUL WORD AND A WARM MESS TO THE WAYFARER.

who must every now and then try the rule or the square to see if they have got things straight, are lacking in Form, and had better be digging ditches, or hoeing corn, than trying to use the hammer and chisel for a living.

BENEVOLENCE.

What is the meaning of this word? You look at your dictionary and find that it comes from two Latin terms that

people; how they show their well-wishing sentiment. While we were chatting about Agreeableness, I think we soon learned that it wasn't everybody that showed much politeness and courtesy in their manner, and although everybody had some degree of the faculty in them, really few appeared to have educated it and made it useful in their every day conduct.

Benevolence, as you know, is a moral

organ, imparting kindness, sympathy, generosity to character; and some people, who do not like the science of Phrenology, have stigmatized its believers as unworthy of notice, declaring that by saying a man's disposition to kindness and sympathy depends upon an organ in his brain we limit the amount of his good nature, and make him only a machine in that respect. These objectors themselves believe in a faculty of Benevolence, just as much as we do, and speak of a man's being "naturally kind," "naturally good," "naturally proud," "naturally selfish," etc., and often censure a man for being what, according to their own acknowledgment, "nature" made him. Now, we simply show the natural constitution, how the faculty of Benevolence or Hope or pride works through the brain, which everybody accepts as the mind's instrument, and we go further and show the benevolence of Phrenology itself, in saying that all the faculties are docile; that is, may be educated, trained, brought out more strongly, or may be held in, checked and repressed.

Benevolence may be ever so strong, and yet the man make a bad use of it; or it may lead a man to do wicked deeds. An English clergyman by the name of Dodd forged drafts for money, which he wished to use in certain charitable ways, and was hanged for the crime. Some men will work very hard and do a great many envious and mean things to get money for benevolent purposes. Such persons have the organ of Benevolence large and active, but not trained so as to work properly.

People who are small in Benevolence don't get much consideration from the world, and especially from young folks; for they are generally close in their dealings, grasping and unkind. They look on with a cold, harsh face when people are suffering, and if they join others in any generous action it is in most cases because they think they will get some advantage out of it.

When Benevolence is large the head is high and rounded in the middle part, a little back of the line where the hair joins the forehead. Alfonso had large Benevolence; he showed it by his self-sacrificing spirit last year when he visited the cholera-stricken towns and mingled with the poor, suffering people. The Rev. Mr. Butler, chaplain of the Senate, at Washington, appears to have the organ large by the portrait that I have been able to procure of him. He is evidently a gentleman of strength in



REV. J. G. BUTLER, UNITED STATES CHAPLAIN.

feeling, decision and action, not afraid to say what he means, and to stand up for what he considers right. Although as chaplain he performs a part that is little more than a brief formality at the opening of the day's proceedings, yet his prayers have been far from mechanical matter-of-course utterances, but often contain thoughts of a practical sort that find echo in the debates of our nation's representatives. Mr. Butler has been an earnest worker from the beginning of his career as a minister, and the church over which he has charge,

the "Luther Place Memorial," is the result of his own mission effort among the people of Washington.

The sentiment of Benevolence is not man's property alone, some of the lower animals have it; dogs and horses especially. You can see it in the shape of a Newfoundland's or St. Bernard's head, in that fulness above his eyes; but in the surly, vicious bull-dog you don't see much of it, in either his disposition or head. As a rule, I warn you to look out for those dogs that are low and flat between the ears, and look out, too, for the horse that is narrow between the ears; he might give you a sly nip if you venture too near him. One evening, on my way home, and while crossing the Hudson on a Jersey City ferry-boat, I made my way forward through the passage that was occupied by wagons of all kinds, thinking meanwhile that I kept quite out of the reach of the jaws of tricky horses. Suddenly a blow on my shoulder caused me to turn around, and

I found that a sly knave hitched to an express wagon had tried to nab me, but I was just out of the reach of his teeth. And there he stood with his mouth elevated and showing his teeth, the picture of indignant regret, I thought, because he had not succeeded in biting off a piece of my arm. His forehead was narrow, and had little or no fulness; he was a regular biter, and I've no doubt that the disposition had been strengthened in him by careless drivers and stablemen, who found sport in teasing the poor animal.

The exercise of Benevolence has a great influence upon character, making it refined, tender and beautiful. Nothing, I think, is nobler than the showing of a generous spirit toward others, sacrificing self that others may be helped in ways that are really useful. It is, indeed, far more blessed to give than to receive. And you will all do well to keep this great precept freshly in mind.

EDITOR.

LANGUAGE OF WOMEN'S DRESS.

THIS is according to a French idea. From a women's bonnet to her shoes, there is not a single portion of her toilet which is not a confession, says the *Parisian*. Riches or poverty changes nothing in this fact. A washerwoman's little cap expresses all her thoughts in the same way in which a banker's wife's bonnet with its feathers proclaims all her ambitions. A look may lie, a smile may be perfidious, but dress never deceives. Generally, ridiculous toilets, historical trimmings, puffs, conspicuous head-dresses, and bunches of feathers and rosettes scattered profusely over a dress, announce great amiability of character, and even generosity; women who are untastefully dressed in this way rarely have bad natures. And, for the same reason, women who really have bad natures are never ridiculous.

Beware of women who always, and for no apparent cause, wear yellow dresses bound with red, or lilac dresses

mixed with green, or blue dresses trimmed with black. They are artful women who do not dare to confess that they are intensely fond of dress. Beware of them, especially if they are not pretty, for they conceal numberless ambitions. They are hypocritical coquettes, who do not understand joking. Tell them quickly that their dress is charming—they will never forgive you for not having remarked it. Do not tell them twice that you like them—they will want to believe more.

Beware of those women who wear high-necked dresses, and who make a parade of severe modesty—they are full of pride and jealousy. They have natures of iron and passions of fire. Nothing escapes their eyes, which they always keep cast down. Beware of women who wear tragical gowns and who have their heads dressed after a certain type. Such women are possessed with an intense desire for producing effects.

THE BEARING OF PHYSIOLOGY ON INSANITY.*

IN discussing this, for the present, the most important branch of my subject, I take the ground and use the language of Dr. Andrew Combe in his valuable work on Mental Derangement (not mental disease, a highly objectionable term) that phrenology has proved that the brain is an aggregate of many distinct organs, each manifesting a distinct mental power. It proves that one or more of these organs may be injured or diseased, and their functions impeded or altered, without necessarily affecting the remainder, and thus explains how a man may be insane on one feeling or faculty, and sound on all the rest ; and, consequently, how, when a different organ is diseased, the faculty or feeling that is deranged may be different and yet the disease itself remain exactly of the same nature. Inflammation affecting the eye disturbs vision, and affecting the ear, disturbs hearing, because vision is the function of the one, and hearing is the function of the other ; but still it is inflammation in both, and requires in both a similar kind of treatment. Phrenology shows that in like manner morbid excitement of the cerebral organs of Combativeness and Destructiveness may produce raving violence and fury ; and a morbid excitement of the organ of Cautiousness produces fear, apprehension, despondency, and melancholy, not from any difference in the kind of excitement, but simply from the function of the one being to manifest the propensities first named, and from the function of the other being to the manifest feeling of caution ; and that hence, both cases may require the same medical treatment for their removal, modified only by the difference of function ; and it affords a simple and consistent explanation of all the various forms which insanity assumes, and leaves us

free to observe with care the nature of the organic derangement on which each depends.

Widely different from this is the mode of proceeding of those who ridicule the plurality of cerebral organs, and maintain the brain to be a unit, every part serving equally to manifest all the faculties. On this principle it is impossible to explain how it happens that in a majority of instances a few only of the mental powers are deranged, while the others remain sound and untouched. For, if the whole brain were the single organ of mind, every part of it ought to concur in every mental operation, and all the faculties of mind, of which it is said to be the instrument, ought in every case to be equally deranged, and the patient ought to pass in one moment from an abyss of despondency to the abodes of bliss, or from a state of listless apathy to that of demoniacal furor. We may be told that this is sometimes found actually to be the case, and no doubt it is so ; but it is far more rare than that in which the mental affection is partial, and retains its characteristic features unchanged. The idiot, who to-day manifests the faculty of Tune, the feeling of Benevolence, of Veneration or of Self-esteem, will not to-morrow, nor in a year, change the nature of his predominant manifestations. In like manner the monomaniac, the feature of whose insanity is to fancy himself a king, or possessed of boundless power and wealth, will not to-morrow believe himself a slave, or in wretchedness and want. Nor will the rich lunatic, whose fear is of dying from starvation, manifest the gaiety and lightness of one who fancies himself the favorite of some supernatural power, as might have been expected had the brain been as a unit the organ of all the faculties. Sometimes, indeed, heterogeneous manifestations and rapid changes from one class of ideas to another take place ; but then, the whole brain, including, of

*Extract from a paper read before the Association of Medical Superintendents of American Institutions for the Insane, at Saratoga, N. Y., June 17, 1885.

course, all the organs is diseased. This state, therefore, affords a true picture of the nature of insanity, such as it would necessarily be in every instance, if the mind were single.

To account for the variety of forms which derangement of so many mental faculties and organs may assume, the advocates of the unity of the organ of mind are constrained to create a new malady for every change in the appearance of the mental symptoms, and, following the wide variety thus presented, they conjure up a list of mental disorders numerous and complicated enough to dampen the ardor of the most diligent and determined student, and at the same time run so much into each other as to defy all attempts at discriminating or describing them. Pathology is equally abundant in demonstrative proof of the plurality of cerebral organs. Partial idiocy—partial injuries of the brain, which do not affect all the mental faculties—insanity, affecting only one or two faculties—cases of apoplexy, followed by loss of memory of names, without apparent deficiency in other respects—and the occasional development of new powers by disease—are all at variance with the unity and in harmony with the plurality of cerebral organs.

Some object to the brain being considered as an aggregate of parts performing distinct functions—that this is impossible, because there is no visible partition separating them from each other; but the same objection having been erroneously urged against nerves, now demonstrated to be compound, shows how little weight ought to attach to our notions of what ought to be, when placed in opposition to what is. If we knew intimately the structure of the brain, and were minutely acquainted with the capabilities belonging to such a structure, and founding on these, could show that two parts of the brain lying in contact with each other could not possibly perform distinct mental functions, then the

objection would have weight. But if experience shows that the fact is the reverse, we are, with due submission to divine wisdom, bound to believe that the respective organs *are* duly fitted for the perfect performance of the functions for which they were destined. There is in point of fact, also, a greater similarity between the different mental functions than between sensation and motion, and yet we find the nervous fibres performing the latter inextricably intermixed in apparently a single bundle. Again, although long disputed, it is now generally acknowledged that the three nerves of the tongue subserve taste, motion and touch; and the difficulty is not greater in regard to the brain, than it is in regard to them, or to the spinal nerves; for it was inability to distinguish any boundary between their constituent parts that alone prevented their separate functions being sooner demonstrated. But the reasons which led to their being viewed as compound, existed in all their force long before the fact was ascertained, and were felt by many, and by none more than Dr. Spurzheim, to be as conclusive then as they are proved to be now.

In discussing the subject of mental derangement it is usual to speak at considerable length of the causes predisposing and exciting that produce it, or that precede an attack of the disease. On this occasion, and for the particular purpose of showing the relation or bearing of the physiology of the brain to this disease, as set forth in this article, I shall confine my attention mainly to the influence of the irregular and unequal development of the various regions and organs of the brain, as disturbing causes, tending to produce an unsettled state of health and mind.

In a brain well and equally developed, and with the faculties of various kinds equally well trained and strengthened, the tendency to derangement from mental causes are but few and slight; the individual in a state of health being able

to make his way in life with scarcely a ripple to disturb the peace and tranquillity of his mind. Unfortunately, however, the brains and minds of many individuals in whole regions as well as in the individual organs, are unfavorably developed, and thus naturally predisposed to irregular mental manifestation, and in some cases to actual cerebral disease, leading directly or indirectly to insanity, through their inability and want of fortitude to meet the responsibilities and bear the ills of life. This may occur with persons of moderate or weak intellectual faculties, and with hopeful and ambitious feelings demanding gratification beyond the power of intellect to accomplish the desired and expected end.

While it is by no means claimed that insanity always originates from excess in the functional activity of the strongest or most fully developed organs, yet, this is frequently the case, as may be shown by examples of this kind. First, it may be stated that it is not difficult physiologically to understand how functional exercise becomes an exciting cause. When we use the eye too long, too intently, or in too bright a light, its vessels and nerves become too much excited and a sensation of fatigue and pain arises. If we continue its exercise the excitement increases, the vessels act with unusual force, and becoming distended with blood give the membrane what may be called a blood-shot appearance; the surface of the eye becomes suffused with tears, the eyelids sore, and a feeling of tension and weight, which extends to the forehead, is felt. If we now turn away the eye, the irritation gradually subsides, and the healthy state returns; but if we continue to look intently, or resume our employment before the eye has regained its natural state by repose, the irritation at last becomes permanent, and disease, followed by weakness of sight, or even blindness, may ensue, as often happens to glass-blowers, smiths and others exposed to work in an intense light.

In the same way, if there be a part of the brain by which the mind feels the emotion of fear, it is easy to conceive how violent and long-continued action of that part should first induce functional aberration characterized by unusual energy and vivacity of the corresponding feeling, and, ultimately, give rise to permanent disease or even change of structure in the organ, rendering its healthy action forever after impossible. The mental phenomena attending such a process would be first extreme anxiety, apprehension and terror from inadequate causes, corresponding to excessive action in the organ of Cautiousness; and, afterwards, permanent melancholy and depression of mind, if the irritation in the organs was of a more durable character. But if the morbid change was so great as to impair the structure, as in *ramollissement*, a suppression of the feeling of fear, and the consequent incapacity of acting with caution and prudence would be the consequence.

An example of this is given by Combe in the case of a gentleman whose faculty of circumspection had been in constant activity for several months, in directing the sailing of a pleasure yacht during a squally summer. By this constant exercise, the energy and activity of the organ had been highly roused, and the consequence was, that on his return home, when it had nothing to guard against, and no legitimate way of exhausting itself, he found himself suddenly seized with nocturnal fits of terror and alarm, without even an imaginary cause, and these gradually abated as the excitement subsided.

Of the second kind, or permanent melancholy, we have everywhere too many examples; and of the suppression of feeling from change of structure in the organ, we have an interesting example in the Rev. Mr. N., who in consequence of apoplexy and *ramollissement* in the organ of Cautiousness, became totally inconsiderate from having been cautious and prudent. He recov-

ered so far as to manifest his intellectual faculties and religious feelings in a state of integrity ; but his Cautiousness was forever impaired, and so completely was he inconsiderate in feeling and in acting, that he was obliged to be withdrawn from public life.

If an individual naturally timid (or endowed with large Cautiousness) and of an irritable constitution be exposed to sudden and appalling danger he may become insane, and the fright, in common language, is called the moral cause. Physiologically speaking, however, we would say that the danger is the natural stimulus to the organ of Cautiousness, just as light is that which stimulates the eye, and that the over-excitement of function thus produced has deranged the healthy action of the organ.

Functional excitement of the cerebral organs may arise in two ways, either from internal activity or from the stimulus of external objects. Sometimes an individual falls by insensible degrees into a train of feeling or thinking, which at first is characterized only by its intensity and frequency, but gradually increases in both of these respects until it becomes confirmed monomania. Thus a man of a vivacious temperament and mechanical genius, will commence with great ardor constructing some piece of mechanism ; he will then conceive the idea of inventing a perpetual motion and proceed with increasing interest and energy in his pursuit until his conceptions shall become bewildered, this idea alone occupying the mind, and reason be displaced. The explanation is, that the organs of the constructive talents being naturally in excess in point of size, had at all times a tendency to preponderating action ; that the first stage of this action was accompanied merely by great mental earnestness and vivacity in the pursuit, but that this functional activity, long and energetically operating in organs possessing an imperfect constitution, at last degenerated into settled functional derangement, or, in other

words, into a form of monomania. Pinel gives a case very similar to the above statement ; and this is in truth the nature of the derangement which commonly affects poets, painters and men of partial genius.

Morbid excitement of the cerebral organs from the stimulus of *external* objects or relations, however, is still more common. Whatever causes deep emotion or excites intense and continuous thinking, especially if the organs concerned are largely developed, produces the same kind of excessive and irregular action as the above. The same principles explain why insanity may arise sometimes from the sudden presentment of an object about which the mind is deeply interested.

Pinel alludes to a family of three brothers in whom the domestic affections were very powerful. Two of them were marched off as conscripts, and one was soon after killed at the side of the other. The latter remained fixed to the spot like a statue ; and taken home in this condition the impression made on the third brother was so powerful that he also became insane. Here the violent action produced in the organs by the sudden deprivation evidently gave rise to a morbid affection of the brain, and to the insanity of both. But suppose, as an example of the other case, a most devoted mother to have received intelligence of the death of a beloved son, to have regretted him long and deeply, but to have recovered some composure of mind, and that in this state he should suddenly present himself before her in health and strength. It is easy to conceive this new excitement, although highly pleasurable, coming forcibly and unexpectedly upon organs weakened by previous excessive action, rousing them to the uttermost, and leading to positive disease and confirmed insanity.

Such cases are rare, but they have occurred, and persons have been known to die even from excess of joy ; a fact explicable only on the principle of excessive

action being thereby produced in the material organ of the mind. From these examples it will be inferred by those who have had any experience of insanity, that its most prolific and powerful functional causes are to be found in over-excitement of those faculties and organs, which are distinguished in their general predominance and power over the rest; and that it is comparatively rare to see it arise from over-action in any of the smaller organs, such as many of those of the purely intellectual faculties. H. F. BUTTOLPH, M. D.



With leafage robed and rich in twigs
Of this year's eager growth
The singing trees hem in the slope
That trends toward the South;
Where all alone, with long, bare arms
And leafless, songless head,
And nestless crotches, stands a form
Like these except "'Tis dead."

Up from the earth there springs a vine
Anear the dead tree's foot
And ere the winter comes, it hides
Her gnarled, uncovered root;

The sheltering vine protects the life
The boisterous wind consumes.
Just such a life, so bare and lone
Though shapely still and strong,
The jest of idlers passing by
Who miss its wonted song,

Wakes up one happy day to see
A wondrous clinging vine
Enfolding it with matchless grace
And singing words—divine.
"Oh mystic vine" the glad tree says,
"My soul is dead," I thought,



It's tendrils cling along her limbs
It clothes in lavish wealth,
And sings a song of praise, so sweet
It lures anew to health.
And lo! when spring-time comes again
The tree her work resumes,

"And lo! thy coming has awaked—
A miracle is wrought."

"And I"—the vine in whisper low—
"Made haste to clasp thee fast
And robe thee with a robe so strong—
It bars the rudest blast."

"How knewest thou, dear, helpful vine,
 That I had need of thee?"
 "Thy voice implored, as waned thy
 strength
 I heard thy longing plea,"
 "But, I had need as well as thou,
 I could not climb alone;
 I clothe with joy—thou liftest up,
 And so—we twain are one."
 "But see, within the bordering wood
 Are trees more fair than I;
 Their songs give not such plaintive tones
 To winds that pass them by."
 "They need me not, they have their joys,
 But thou wert all alone;
 And I, by happing thee about
 Have made thee all mine own.
 So grow thou strong, lift up thine head

And spread thy shapely arms,
 And I will shield thee from the blast
 That else would mar thy charms."
 No more "the jest of passers by,"
 No longer—"shunned of birds"
 "A picture" limned against the sky,
 "A theme" for poets' words.
 The "motive" of an artist's work,
 "A boon" to man and beast.
 "A note of gladness" to the ears
 And to the soul "a feast,"
 Becomes, through shelter of the vine,
 The tree that once was bare;
 The dwarfed, lone life through *love* has
 grown
 Symmetrical and fair.

—MRS. A. ELMORE.

LUDWIG, OF BAVARIA.

IN ancient days it was not uncommon for monarchs when defeated in battle or unsuccessful in their schemes of government, to commit suicide, but in



LUDWIG, OF BAVARIA.

our time it is a very uncommon act, especially by one who is considered a Christian. The sudden and desperate conclusion to the extravagant career of Bava-

ria's king, which occurred on the 13th of June, has produced a marked sensation in Europe. In this country Ludwig had become so well known because of his eccentricities, particularly his unbounded interest in music and art, that the last scenes of his life and the manner of his "taking-off" could not but elicit our sympathy. He was born at Nymphenbourg, on April 25, 1845, and in 1864 succeeded his father, Maximilian II., as King of Bavaria, coming to the throne at a time when the nation was in a prosperous condition, and everything seemed favorable for a successful and happy career. Up to this time he had been under instructors who kept him in a very secluded relation, in spite of his natural inclinations to society and boyish enjoyments. Young companions he had had none, and the sports of boyhood had been to him a sealed book. In statecraft he had not been instructed, and the commonest duties of a constitutional king had not been impressed upon him. No wonder, then, that his reign from its beginning was marked with mistakes and extravagant follies. Set free from leading strings, he gave free rein to all the long-repressed spirits of boyhood, even to playing at marbles and other trifling

games with his courtiers. A powerful esthetic organization was his, as shown in all his portraits, but it had also lacked training, and now, with a large private fortune at command, he began to dream of making Bavaria what Athens was in the age of Pericles. All that was beautiful in poetry, music, painting, sculpture, architecture, he would there have gathered to himself. But to this task he betook himself in a flighty and impracticable manner, so that almost the only result of importance was that arising from his liberal patronage of the musician Wagner. The king's patronage of Wagner was probably largely in emulation of Louis XIV.'s patronage of Moliere. It began at the beginning of his reign, and was never broken until the great composer died, although jealousies and intrigues at one time made it expedient for the two to moderate their personal intimacy. The king lavished his own and his kingdom's wealth upon Wagner's works.

For the idol of his fancy and the model of his career in other respects Ludwig chose Louis XIV. Perhaps this trait was most strikingly manifested in his palace-building, a passion to which he sacrificed a fortune of more than \$20,000,000. The most splendid of these is on the Herren Island, Chien See. It was intended to rival in all respects the glories of Versailles. At Hohenschwang, an almost inaccessible castle on the Alps, was his favorite home, and he made it one of great splendor. Another great castle he built at Linderhof, and half a dozen others on remote Alpine crags. One, near Hohenschwang, still unfinished, was founded on plans inspired by Wagner's operas. Schlossberg, on Lake Starnberg, was one of his finest and favorite palaces, but he years ago abandoned it because there were other houses within sight from its turrets. At Linderhof he had placed the Indian kiosk which was such an object of admiration at the Paris Exposition of 1867, and there also he had constructed

in the mountain side a huge grotto, which was fitted up and illuminated to represent an Oriental fairy-land.

An important part was played by Bavaria in the Franco-Prussian War. Out of a total population of 4,000,000 she sent 130,000 soldiers to the front. So, when the war ended, the people demanded that Bavaria should reap a substantial reward, and this, they saw, was best to be accomplished by merging their sovereignty into the great German Empire. This was done, after tedious negotiations, the Bavarians holding out for every right and advantage Bismarck would grant. It is to be supposed that this step was distasteful to King Louis. After dreaming of an empire like that of Louis XIV., he could not be expected to become without regret a mere subordinate of the German Kaiser. But he recognized the logic of events, and this probably the more readily because of his deep disappointment at finding himself subservient to a constitution and a parliament. So he accepted the situation, and it was he who first urged upon the King of Prussia the assumption of the imperial title.

King Louis was never married. There are many innumerable romantic stories about his disappointments in love, resting mostly upon rather shadowy foundations. He was regarded in his consideration of women a bitter misogynist.

It was long ago believed by many that his reason was unsound, and this opinion year by year has grown stronger and more general as he has gone on to wilder excesses of extravagance. More than a year ago it was realized that he not only had made himself a bankrupt, but had plunged the kingdom in debt to the extent of many millions. Then it was seriously proposed that he be deposed on the ground of insanity. A decree to that effect was promulgated recently by Prince Luitpold, the king's uncle, who was declared Regent. This measure, of course, the unfortunate king violently resisted. The proclamation

was issued on June 10th. Count Holstein was sent by the ministry to wait upon the King at Hohenschwangen and ask him to authorize the appointment of a Regency Council. The King ordered the Count to be thrown into a dungeon of the castle, and his guards to prevent the approach of any further messengers. On Friday the Ministers of State went in person to Hohenschwangen, but were repulsed. On Saturday, however, an entrance to the castle was effected, and the King was persuaded by his physicians to go to his favorite Versailles chateau, the Schlossberg, on Lake Starnberg, under the guardianship of Count Boos, of Waldeck. It was there, the next evening, that he violently brought his life to an end by drowning himself and

also strangling his only attendant at the time, Dr. Gudden, who endeavored to prevent the king from killing himself. This is the official account; some rumors, however, of foul play are afloat. It is to be added that, despite his mad follies and secluded life, he retained throughout his entire career the loyal regard of the Bavarian people.

The heir to the throne is Louis' brother, Prince Otho, who was born at Munich, April 27, 1848. But he is ineligible, having for years been under ward as a hopeless lunatic. The Regent, Prince Luitpold, born at Wurzburg, March 12, 1821, is a distinguished officer of the Bavarian and German armies. He has three sons the oldest of whom will probably succeed to the throne.

DECLINE OF POPULATION IN RURAL MASSACHUSETTS.—NO. 1.

THIS decline is going on throughout New England, in portions of New York State and Ohio, and still other States of the Union. But there are some advantages in confining our research to a single one, and it is now most convenient for me to take as an example that in which I am residing. Further, Massachusetts is regarded as a kind of index State, and so is looked at to determine somewhat how the ocean tides of civilization are flowing.

I have stated that to be a fact which I am prepared to undertake to prove.

The fact itself is a solemn and a startling one, as I shall try to show in its proper place.

1. There is a general impression that the country is being depopulated, while the villages and the cities are growing larger.

2. The drift of remark and conversation is to this effect, whether you listen to the body of the people or to the observations of travelers, politicians, philosophers, or otherwise. Anon you hear the lines :

"All fares the land, to hast'ning ills a prey,
Where wealth accumulates and men decay ;

Princes and lords may flourish or may fade;
A breath can make them, as a breath has made :

But a bold peasantry, their country's pride,
When once destroyed can never be supplied."

3. Men accustomed to hold offices in country towns, in particular, will state how much larger the whole vote used to be, and they, or the school board, will inform one how many districts have been dropped and school-houses closed. Such information is imparted in a way to indicate that it is painful to the possessor, and that it will have a melancholy effect upon the listener. It is understood to be depressing, instead of animating; a matter of deep regret, rather than of congratulation.

4. You may visit one of the older inhabitants, one, perhaps, born in town, and whose ancestors for several generations lie buried there, get into conversation with him about the past and the present of that township, and he will grow serious, relate how many more families there used to be in his own and other neighborhoods circumjacent, how larger the average household, how much stronger, healthier and united people

thereabouts once were, he might add, handsomer. He speaks in the sombre style of an Indian sage standing on an eminence and describing to his companions the hills, the vales, the plains which *once* belonged to his tribe.

5. Whether the pastor, the sportsman, the physician, or anyone else is walking or driving about in one of these towns, he is constantly meeting, or at little distances, clumps, rows or circlets of trees that once manifestly surrounded a house, walls and pieces of fence that quietly bear the same tender testimony, entire excavations of partly-filled portions of a wall still standing; in respect to all of which the exclamation is made, "Another old cellar-hole!"

The observer, if at all clairvoyant in the midst of such scenes, has an impression of vanished life, of a departed activity, of space deserted, now only haunted, and he can see ungainly stretches, unsightly distances between houses, young forest trees growing on old furrows, closed roads and others yet barely open, almost grown over, which say to him, "I once was abundantly traveled."

He will find places where there is energy and thrift, an attempt to farm according to the latest ideas; he will also find others, and too many, where they plow only portions of the field, skim over a little here and there, are letting buildings, fences and everything else run down. If he accosts one of these peasants the response may reveal a nationality not the primitive New England stock.

6. You are distinctly told of a false fear of years ago in regard to a supply of wood. It was thought that the time would come, and not far distant, when not enough wood would grow for fuel. At that time forests were felled to make new fields. Now, although the primitive woods are gone, the tall trees leveled, a kind of scrubby growth is spreading wider and wider, and with the increased use of coal the price of wood is kept down. At the present time, when wood-

land is cut over, it is left to grow up again. There is tillage land enough for the diminished and diminishing population.

7. A middle-aged man may remember when, in his town, at the centre, perchance, there was, for those days, a large and respectable hotel. The landlord could afford to provide amply for man and beast for election days, for weddings, for sojourners, for parties, and the coming of the thundering stage. Teachers were examined there, caucuses held, and sometimes the ordaining council met at that place. There was plenty of help in and about the buildings, and all so respectful and ready. The public house has departed, or dwindled, in many cases, into a little, miserable rum-selling stand. For the four and six horses, a half stage of two, or a creaking wagon drawn by one horse suffices to carry the mail bags and passenger, should there be one.

8. A more strangely dreary object can scarcely lie against the horizon, or confront your immediate presence, than an unfrequented church. Yonder is one, and beyond the next hill is another. They used to have a noble attendance. Preachers, famous in their region at least, officiated in the high pulpits and at the thronged communion tables. One or another has given out and left the field to a rival, not from any change in conviction, but because the means became so limited and the attendance so wretchedly meagre. My best buggy is shining under a varnish put on in a building which was once a church. In those very walls, twenty-five years ago, I used to speak occasionally to a full congregation.

If I had time to ponder, I could find other general considerations all pointing their bony fingers in one direction—that of the caption of my article. The decline has taken place and is still going on, as I will bring statistics to attest in my next number.

The reader will remember that our

special field of view is the famous Bay State. You would hardly expect to find a better government, more gracious institutions, and, taken together, a higher civilization. Our hills break the cyclones in their formation. We never have a drouth, such as some countries experience. Markets are near at hand. The soil is broken, often rocky; yet back from oceans sands, never barren. It will produce every crop the latitude will allow of; is quickly revived, and

can not be entirely run out. It immediately responds to every sort of good dressing, holds it well, bears the best of grasses, and has the sweetest of pastures. A farm can be bought in a good situation for some two thousand dollars, which will keep ten cows and the usual proportion of other stock. Why should such lands be forsaken? We will try to answer that in the third and closing number.

REV. L. HOLMES.

THE CHRISTIAN CHURCH: ITS HISTORY AND DIVISIONS.

THE UNITARIAN.

Unitarians claim that the records of Christ teachings as found in the New Testament, when properly read, give not the slightest idea of a dual or triune Godhead, and that the same is true of all the gospels. The beginning of John's gospel, so often quoted in defence of Trinitarianism, is now believed by most of the best Biblical scholars to have been written by some other hand than John's, and if it were not the word *Logos* has, Unitarians claim, a very different meaning than that which Trinitarians give it.

The immediate disciples of Jesus, the Christ, doubtless believed him to be the long-expected Messiah, and if their faith was somewhat shaken by his crucifixion they preached the gospel he had taught them to Jew and Gentile.

When this new gospel reached Greece it met with both support and opposition. There was that in it that well accorded with much of the teachings of Socrates and Plato and others, while it was antagonistic to the generally received idea of many gods. Plato had taught the doctrine of a *Logos* or emanation from Deity, or divine reason. Later his followers taught that *Logos* was a divine, separate, corporeal existence, created by and from the Creator. When the Apostles appeared among them and told them of Jesus, of his miraculous birth and works, of his death and resurrection, they said, "This must be *Logos* in hu-

man form," and, in accepting the religion of the Christians, they did it holding views of the nature of Christ of which the Jews had no conception. But then, as now, if public confession of religious belief was in the main satisfactory, private opinions were not strictly examined. The result was that in many sections the accessions to Christianity from the Platonists were so great that paganism was really in the ascendancy, and the Platonic idea of the *Logos* became to a great extent established in the Christian churches, and Jesus was deified.

But this doctrine was not received by all, and from the first has been the cause of much contention, and, although at times almost overborne by numbers, and compelled to silence by the power of governments, both civic and ecclesiastical, the belief of the primitive Christians as regards the nativity of Christ would assert itself; and there has never been a time since the Crucifixion when these beliefs have not found lodgement with many of the clearest thinkers and best logicians of the world, and protests against the reception of the prevailing dogmas have not been infrequent.

In the second century we find, in Rome, Theodorus and Artemon asserting the primitive doctrine that Jesus was a superiorly illumined human prophet or teacher. In Antioch Paul, the bishop, was preaching the same doctrine, and

was deposed for his heresy. Many others of less note were teaching the same or similar doctrine, and all referred in support thereof to the Old and New Testaments, and to the teachings of the early churches.

Definite information relative to many of the supporters of these "heretical" doctrines have not reached us, but enough is known to assure us they were very troublesome to the church authorities, and that their number was not inconsiderable. Passing over to the fourth century we come to the great controversy between Arius and Athanasius, the latter asserting the equality of the Father and the Son, while Arius insisted there must have been a time when the Son was not making his existence dependent on the Father, and giving him a position which, while above and unapproachable by any other human being, was still subordinate to the one only God.

This controversy engaged the attention of the whole Christian world for several years, when, at the Council of Nice, a creed formulated by Athanasius was adopted, declaring the equality of the Son and the Father.

Notwithstanding this action of the Council Arianism continued to spread, and has had much influence in the religious world to the present time, although so great had grown the power of the Roman Church, and so hostile was it to all who questioned the soundness of its doctrines, and especially that of the Trinity, that we hear little of pronounced Unitarian ideas until about the time of the Reformation. Unitarianism was not an outgrowth of the Reformation; contrary-wise Calvin and Luther and other leading reformers had no quarrel with the Church as to the Trinity, and held all Unitarians as true heretics deserving excommunication and punishment; but when men were found bold enough to question and oppose the practices of the Church others took courage, and it was seen there were many who were not in

harmony with its doctrines and who were glad to express their views. Among the earliest of these were Hesser and Deuch, in Germany, rationalists who taught that Christ was an example of perfect humanity, and that, through his teachings all, even devils, would at last come to blessedness. In Switzerland, Claudius, and in Swabia, Funk, taught much the same doctrine.

About 1550 Servetus, a Spaniard, was incautiously out-spoken in his opposition to the Trinity, and was burned at Geneva for his heresy by authority of the Church, with the connivance and approbation of Calvin.

Shortly before this time, with other religious fugitives from Italy, was Lelius Socinus. He had been a member of a secret society formed for the purpose of examining religious questions, among which was the doctrine of the Trinity, "which they held had been borrowed by the early Church from the speculations of Greek philosophers." After traveling over much of Europe he died at Zurich, in 1562, when only thirty-seven years of age.

Faustus Socinus, a nephew of Lelius, was, in consequence of his uncle's teachings and his own investigations, a Unitarian before he attained his majority. He became possessed of his uncle's papers, and during his life time thereafter hesitated not in any place, nor at any time to set forth his beliefs. Luther, Calvin and others, he said, had done good work, but they had not gone far enough, and he asserted the only firm foundation on which religious protestantism could rest was human reason. He combated with eloquence and logical force those doctrines of the church now condensed and known as the five points of Calvinism. Driven from one part of Europe to another, we find him about the middle of the sixteenth century in Rakow, Poland, where he established a printing house, and issued therefrom, with other works, the celebrated Racovian Catechism. He died in 1604, hav-

ing giving an impulse to the spread of Unitarian ideas the effect of which has lasted to this day.

So great at this time was the persecution of anti-Trinitarians, by both Church and State in most of Europe, that, except in Transylvania, all their organizations were broken up. In this state the Unitarian Church, early established, still exists. Unitarianism was introduced into Transylvania in 1563 by Blandrata, an Italian physician, but the founder of the Church there was Francis David. He was born in Klausenburg, in 1510, and educated in Wittenburg where he became acquainted with the leaders of the Reformation. In 1540, we find him advocating a consolidation of all reformed churches in Transylvania, although holding for himself at that time the Lutheran faith.

In 1564, he was made a Calvinist bishop, and was Court Chaplain to Prince John Sigismund, a Protestant, and protector of religious liberty. About this time he became acquainted with Blandrata, accepted Unitarian views and was earnest and efficient in spreading them, and in 1568 was chosen bishop by the supporters of that faith. After the death of Sigismund, in 1571, a Catholic prince was elected in his place, by whose means David was imprisoned at Deva, where he soon died. Since that time, until comparatively recently, the persecution of Unitarians in Central Europe has been almost continuous, but through it all the faithful in Transylvania have maintained their position and sustained their church.

To England, from the Continent, had early come Unitarian views, and during the reign of Edward VI. and his successors to the time of James I. several suffered martyrdom because of their denial of the Trinity.

From this time concurrence with the views of Socinus increased, and in 1665 it was said, "the evil is at the door; there is not a city or town, scarce a village, in England wherein some of this

poison is not poured."

The infection reached the Church of England, and many of its prominent members were shaken in their faith, and such men as Milton, Locke and Newton were tainted with the heresy.

About 1650 the first organized body of Unitarians in England was formed by John Biddle, since known as the father of Unitarianism in England. He gathered a congregation in London and set forth his ideas in a catechism, and is said to have translated and published the one issued by Socinus in Rakow. It was about this time that anti-Trinitarians began to be known as *Unitarians*, instead of Arians, Socinians, etc.*

In the last part of the seventeenth century the doctrine was ably presented by a series of tracts from unknown writers, and in the beginning of the eighteenth century it was said there were more Unitarians in the church than out of it. About this time Dr. Priestly became the leader of a new school that denied the doctrine of the Trinity and asserted the humanity of Christ, denying that his death was in any way a satisfaction for sin; holding the Bible to be a revelation from God teaching a resurrection, and believing the stories of the miracles as recorded in the New Testament. Many Presbyterians accepted these views; they were also held by the first Unitarians in America.

In 1785, James Freeman, a lay reader in Kings, now Stone Chapel, in Boston, the first Episcopal church in New England, announced his Unitarianism, and was sustained by a majority of his congregation, who changed their liturgy to

*E. E. Hale, D.D., says that "in Hungary, about 1560, Lutherans, Calvinists, and Socinians agreed on a basis of union securing to all freedom of religious belief. Because they were thus united in maintaining unity of religion they were called *Uniti*, or *Unitarii*. When the Lutheran and Calvinists came into power they gave up this degree of toleration, the Socinians only holding to it. The name Unitarian thus attached itself to them, and by gradual dispersion from Hungary through the rest of Europe it now designates the body to which we belong."

accord with their newly-accepted teachings. In 1787, he was ordained by the wardens and vestry as pastor, and thus was established the first Unitarian Church in America.

But New England was then too fully imbued with the doctrines of the Puritans to approve of such heresy, and it grew but slowly. True, there were many connected with the orthodox churches who could not entirely agree with the doctrines thereby taught, neither could they entirely cast off the effects of early education and home teachings. Change came but slowly, but it came. In 1805, a Unitarian was made a professor of Divinity in Harvard College, but Unitarianism as a sect can not be said to have had an existence in America until some years later. Foremost among the promoters of this faith was Dr. Channing, whose able sermons and addresses, and especially his celebrated discussion with Dr. Worcester, called public attention thereto, and resulted in numbers withdrawing from the Congregational or "orthodox" church, and forming separate societies. In his discussions and teachings Dr. Channing broke loose from some of the ideas held by some of the more prominent Unitarians, both in this country and England, and taught a religion of humanity, in which belief is held to be of less importance than right living, and to do good man's highest attainable object.

It is difficult to tell what is the creed of a body that professes to have no creed, for, as a whole, the Unitarian denomination has no article of faith or statement of form or dogma to which assent or subscription is required. But in one thing they all appear to agree, and say, with those of old, "The Lord, our God, is *one* Lord;" a unit, not made up of parts; the Creator of all things; the absolute first cause.

As regard Jesus, all Unitarians agree that he was in no wise God, or any part of Deity. As to his divinity there are differences of opinion; some believe him to have been the first creation, with a

nature different from any other; others see in him a human being endowed with high spirituality and miraculous powers, incapable of sin, and fitted to teach truth to a world that had gone astray; while others still believe him to have been a man as other men are, but capable of attaining nearer to perfection, "a man of deepest spiritual intuitions, a great prophet, a great moral hero, of whose spirit the world is not yet worthy, and whose character and life are the highest models we have ever yet had;" a man who, by his teachings and example, became a Savior from sin to all such as will follow him.

Most give no credence to the stories of his miraculous birth, and do not see in his resurrection, if admitted, any proof of the literal resurrection of our bodies.

The doctrines of original sin, total depravity, and the fall of man from a state of perfection have no place in Unitarian beliefs, and when these are eliminated from orthodox creeds others, of necessity, go with them, and the necessity of an atonement and vicarious sacrifice as therein taught is done away.

Whether man's moral nature is influenced by heredity, or if only a predisposition to good or evil doings is the result of the acts of ancestors, is a question on which all do not agree. The Holy Spirit is an emanation from Deity, and not a person or substance. Personal devils have no existence in this world nor in the next. Nearly all Unitarians believe in the immortality of the soul and its conscious individual existence in another life; what that life will be none pretend to know, but it is the general belief that our lives here will determine how they will begin there; that no state or condition of punishment for sins committed here exists in the life to come, but all will be as happy as their preparation in this world renders it possible for them to be, and finally attain a condition of holiness of which we here have no conception.

None believe in the endless suffering of

any soul, but there are a few who believe man may become so sinful as to extinguish the spark of goodness common to all and become incorrigible. For such is annihilation.

Salvation is held to be a subordination of the animal in our natures to the spiritual, of sense to soul, a work usually gradual, ending only with death, and, perhaps, not then. All who help us in this work are saviors, of whom Jesus is the chief.

Unitarians have little regard for any of the sacraments of the Roman or Evangelical Churches. When the Lord's Supper is observed it is rather as a remembrance and expression of affection to which all are invited. Baptism is not held to have any "saving grace." The Bible is looked upon by most Unitarians as the history of the growth and religious of a great people, and containing the best thoughts of its leaders; not the word of God, but containing God's words as given through the prophets and teachers of the times; not to be relied upon as scientifically or, in all cases, historically correct, but full of food for spiritual growth. They believe in man's free will to the utmost extent, and that God and all good spirits, and all good men and women, are helps to the attainment of a holy, if not a perfect, life. As a father God desires the greatest happiness for his children, and those who fall short have themselves only and not Him to blame. There is a holy spirit emanating from God, the influence of which may be enjoyed by all who really wish it.

The church government of Unitarian societies is congregational. Each society manages its own affairs. They have no synods, or presbyteries, or councils, or bishops. The form of worship is simple, and varies but little; some use a brief liturgy or responsive readings of the Scriptures, while others dispense with them entirely. There are no intellectual tests for church membership, purity of character being the only requisite. A few societies have formulated creeds for

their own use, but these are for the most part brief statements of Unitarian doctrines, and even assent to them is not usually obligatory.

In 1825, an incorporation known as the American Unitarian Association was established in order to effect a "more systematic union and a concentration of labor, by which interest may be awakened, confidence inspired and efficiency produced." This association has no power over churches or societies, but receives donations from them, and from individuals, that are used as is deemed for the best interest of the denomination. A conference of "Unitarian and other Christian churches," composed of clerical and lay delegates, meets bi-annually, in September, usually at Saratoga. It is, as its name implies, merely a conference, and no other body is bound by its action.

More recently State and District Conferences have been established for the purpose of sustaining missionary work. From the Unitarian year book for 1886 we learn there are in the United States 350 Unitarian churches, a large percentage of which are in New England.

L. A. R.

RECOMPENSE.

- "What hath been bringeth what shall be,
and is,
Worse—better—last for first and first for
last;
The Angels in the Heavens of Gladness reap
Fruits of a holy past.
- "Who toiled a slave may come anew a
prince
For gentle worthiness and merit won;
Who ruled a king may wander earth in rags
For things done and undone.
- "Only, while turns this wheel invisible,
No pause, no peace, no staying-place can
be;
Who mounts will fall, who falls may mount;
the spokes
Go round unceasingly!"

Light of Asia.

WHY I DID NOT LET IN THE CAT.

WHAT I am going to tell happened a very long time ago, and happened to me, then a little girl only six years old. Some Indians, about whom I will tell another time, had called me "a brave papoose," and perhaps I was, for when I was a child living in a little cottage under the beautiful pines, there were many Indians, and wild animals which no longer exist in that part of the country. I was not afraid of these animals, though I often saw them as I went through the woods of my grandfather's farm. They never molested me as I loitered under the overhanging branches—the fearless birds singing above, the bumble bee humming in the clover, and the honey-bees contentedly droning in the hollow pine tree, where no one was allowed to meddle with them, though the honey would sometimes run trickling down the trunk of the tree.

I was on a visit to an uncle, with whom, and his smart wife, I was much of a favorite. There was a pretty little cousin named Cordelia, three years old, with whom I slept. There was to be some company at the old homestead, and, as we were too young to go, and I not afraid to be left, uncle and aunt put us children into bed, fastened the door, and left us in what seemed perfect safety.

The room was on the ground floor; there was a window on the front and rear, with white curtains looped up on each side, through which the clear moonlight shone brightly. It was early in autumn, and the trees were in their gorgeous drapery of purple and crimson and gold; now and then a light wind scattered the leaves upon the ground with a soft rustle which fell pleasantly upon my dreamy ear. As a matter of course I taught Cordelia her little prayer,

"Now I lay me down to sleep,
I pray the Lord my soul to keep;
If I should die before I wake
I pray the Lord my soul to take."

For myself, after saying the Lord's prayer and extemporising petitions for all my friends, and begging my dead father to not forget me now he was in heaven, I was sinking into a dreamy slumber, thinking how beautiful everything and everybody in the world was, when I was roused by a spring and a heavy scratching upon the glass of the window followed by a low whine and mewing of a cat.

"Oh! poor kitty has been left out," I said, half asleep. Just then she jumped down and rushing round the house appeared at the other window with loud mews and whines to get in. This was too much for me, and I scrabbled out of bed, and hastened to lift the sash. My little hands were on the frame of the window, and I was about to lift it up, when all at once I thought it looked too large for our kitty—the eyes were too big, and the yowling not like that of Tabby when she wanted her basin of milk.

I drew back and the creature made a rush to the other window, fairly screaming with impatience. I felt sure all was not right, but saying another prayer to God to take care of us two children I jumped into bed, and covering my head with the quilts and blankets soon fell asleep. I had an indistinct idea that I heard the firing of a gun, but soon I was lost in that beautiful oblivion of a sleeping child.

In the morning while we were at breakfast I told my little story of the big cat; that I was just going to take her in when I thought she was too large for Tabbie, and I jumped into bed again and covered up my head. Aunt and Uncle looked at each other and turned pale, and Uncle William said:

"You are a wise little girl, Elizabeth," at which I was pleased.

Then we all went out to see where the cat had been. Sure enough, the ground was trampled upon, the pinks and Sweet

Williams torn to pieces, and the tall hollyhocks and love-lies-bleeding and London-prides all broken down.

Uncle William and Aunt Rebecca hugged and kissed little Cordelia, as was natural, with tears running down their cheeks, and then they kissed me.

"And now we will go and see the big kitty," uncle said. Accordingly when Aunt had fed the chickens, and placed a pan of milk for Tabbie, we all started to go over to the old farm-house.

It is well known that people who live far from the sea consider a mess of clams at the proper season a great treat, and men come round and bring them to the inland farms in large carts, where they find a ready sale. It so happened there had been some brought round the day before this happened to me, and the shells had been thrown out into the great pasture, outside the park gates. My big kitty, finding she would not have

a feast upon two sleepy children, went off and was gnawing at these shells when she was heard and shot by the head farmer, and there, lying upon the grass was the beautiful beast. He was beautiful, of a tawny gray with stripes. I knelt down and lifted the big paws, soft and cushioned, and looking so harmless.

The people came far and near to see him, for his cries had been heard in the mountains, and more than one sheep had fallen beneath his claws. Some said it was a wild cat—but others scoffed at the idea, and said it was a young catamount, or the American panther, and when it became known that he had been to the window and that I was about to let him in people regarded me with solemn looks, but Grandpa said, "The hand of God is in it. The child is reserved for something better,"

ELIZABETH OAKES SMITH.

WHENCE WAS IT?

AN instance of a psychical nature has been recently described to us by a friend, in whom we have entire confidence, and who obtained the facts given at first hand: "Dr. L. is a physician who has been practicing for twenty-five years, and is well-known in New York, being authority in certain lines of disease. Early in his practice, and while residing in Jersey City, a young man studied medicine under his direction and took his medical degree at one of the New York schools, and shortly afterward, viz., in 1869, died. Among those who have sought Dr. L.'s advice, is a Miss B., from Central New York; she has spent considerable time here, in order to be near Dr. L. while receiving his treatment.

For a while this young lady boarded in a family where occasionally a spiritual séance was held. She was invited to make one of a circle, and accepted the invitation. In the course of the developments that evening a spirit appeared

representing himself as a certain Dr. P. All in the circle declared that he was an entire stranger to them. Miss B. certainly had never heard of him; nevertheless, his coming appeared to have special reference to her. He gave his name, and stated that he knew Dr. L., had studied medicine under him, and that Miss B. could place entire confidence in him as her medical adviser. Of those who composed the gathering on this occasion not one, besides Miss B., had ever met Dr. L. Subsequently Miss B. inquired of Dr. L. if he had ever known such a person as Dr. P., and Dr. L., in surprise, wished to know where she had heard of a man who, he supposed, had been quite forgotten in a place where he was very little known when alive; and as he did not know the people in whose company Miss B. had been, Dr. L. was compelled to regard the incident as extraordinary. Since that time no practical explanation has been offered of the affair. H.



A STRANGE ADVENTURE; OR, A GLIMPSE OF EDEN.

I HAD been out of health and wholly miserable for nearly two years. Many doctors had been consulted, many experiments tried, and my disabled mind and body bore witness to their inefficiency. Reluctantly I yielded to the conviction that for me there was no help, and that I must bear my sufferings with what patience I might till the dark "Angel of Death" came for my wearied soul. One day, while walking down the principal street of my native city, my settled despondency was broken by a sudden thrill. Involuntarily I stood still, and raising my eyes I encountered those of a gentleman of about fifty years, who stood near the crossing. He gazed upon me for nearly a minute, while I, helpless, without power or desire to move, remained motionless. Suddenly he turned, hailed a passing car and sprang into it. With his disappearance came back the life that seemed to have been suspended momentarily. I distinctly felt the relaxing of the nerves and the disposition to move, with the incoming flood of natural feeling.

"What does it mean?" I questioned myself. Why did I stand motionless after feeling that strange and sudden thrill? Had that man power to paralyze me by a glance, or am I becoming a cataleptic? The thought was horrible, and I turned, nervous and confused, and hurried

home. I told my husband and daughter of the occurrence, and of my fear that the stranger had magnetized me in some manner. They both tried to laugh me out of the idea, and said I probably had a nervous chill, and the stranger happening to glance at me at that moment my imagination had thus connected it with him.

About a week later, while shopping in one of the large stores that decorate our city, I felt that same strange thrill pervade my frame. Turning I again encountered the same face with its magnetic eyes, and once more found myself under their influence. Again I was motionless, neither stirring nor thinking, while those eyes seemed to penetrate through and through my whole frame. In a moment he turned and left the store, and I was relieved from the paralysis, if such it was. This time I was indignant. "It was no nervous chill," said I. "The man is a magnetizer, and because I am weak and ill he is experimenting on me." That evening I told my husband, who became alarmed at what he considered my shattered nervous condition, and advised me not to go out alone, and should the occurrence again take place to call an officer and have the man arrested.

The next day, wishing to make some calls, I took my daughter with me. We

had proceeded but a few steps from the house when the strange being crossed my path, and with the same effect as before.

I stood helpless and dazed until he had passed. Before I had recovered from the shock my daughter exclaimed: "Is that the man you spoke of? Now I understand you. I felt his influence also. First a thrill that passed all over me, and then a sensation of numbness that took away the desire to move until he had passed. There must be some power about him that renders helpless those upon whom he looks. What a dreadful man!"

The recital of this occurrence greatly disturbed my friends, who advised me to leave the city for a few days and seek rest and comfort in some country town where I would be free from unpleasant apprehensions. A friend coming in just at this juncture insisted upon my making her a visit of a week. I partly promised, but failed to appoint the day. Feeling very miserable for several days, and unable to drive away the thought of the encounter, at my daughter's suggestion I decided to accept the invitation without further delay.

Packing a small traveling bag of necessary articles I stepped into a passing car, and in a few minutes stopped before the depot. With several other passengers I alighted, and was about entering when I once more felt that magnetic thrill, and turning saw the stranger. I stood motionless. He approached and said: "Where are you going?" Passively I replied, "To the country." "How long do you remain?" "A week." "You will die there, follow me." He turned and walked off. Automatically I followed. I had no feeling of surprise or reluctance, nor did it seem wonderful that I should obey this stranger. He kept a little ahead of me, once in a while turning to see if I were following, but he uttered no word of command or encouragement. Soon hailing a passing car

he motioned me to enter. We rode until we reached a ferry, crossed the river, and entered a railway car. He motioned me to a seat, placed himself beside me, and soon the train started. Not a word was spoken. I felt perfectly tranquil. No thought of fear entered my mind, nor did I experience the least emotion of any kind whatsoever. I felt as a little child would in the hands of its father, perfectly contented.

We rode thus for two hours or more in silence. Wearily I laid my head against the side of the car and closed my eyes. There was a halt for refreshments. My companion went out and in a few moments returned with a bowl of bread and milk; placing it in my hand he said: "Eat." Meekly I obeyed. He stood patiently waiting until I had finished, when he handed the bowl to a passing attendant. A few minutes after eating I began to feel a dawning consciousness of life, as if the blood were beginning to flow again in my veins, and with it came a feeling of alarm, not unmixed with anger. I turned suddenly towards my companion: "What does this mean?" said I. He made no reply, but looked at me steadily for a few seconds, and again I was powerless, plunged once more into a peaceful apathy. For an hour thus we rode, when the train-boy coming through with a basket of fruit my companion placed an orange in my hand. I held it, without knowing what to do with it. I could distinguish its color, but felt no sense of weight. It was much as if I had been given a ball of golden down. I looked at it with a sort of stupid unconsciousness. After a few moments he took the fruit, peeled, quartered, and placed it on a paper in my lap, saying, "Eat." Mechanically I obeyed, and felt a little refreshed, but not enough to stir in me the slightest feeling of rebellion.

It might have been an hour longer that I rode with my silent companion, when the train slackened at one of those half-way stopping places where there is

neither depot nor village, but only a little platform for the accomodation of the few families settled around. We alone alighted. The train passed on. My companion walked to one of the larger of the few cottages and ordered a conveyance. Shortly a two-seated wagon appeared. Placing me on the back seat he took a seat by the driver. We rode for miles, it seemed to me, scarcely passing a person, and at length halted before a handsome, though lonely farm-house. There he paid and dismissed the driver. We passed the open gate and entered the large hall-way of the house. No one was visible, and my companion walked on, glancing into the rooms as we passed, through the hall and out on the back porch. There we saw signs of life. A woman was washing the face of a little urchin at a basin placed on a bench near the wood-shed, or "lean-to," as it is sometimes called. A muddy little dog sat by, anxiously watching the performance, as if he thought his turn would come next. Two men were ploughing in a field near by. To all appearances it was a fairly prosperous farm-house. As we passed, the woman, looking up, said: "Glad to see you back, Doctor;" to which he replied with the question, "All well?" On we went through the kitchen garden and into a patch of woods. All was quiet, and, as I followed my strange guide I felt no fear. Nothing but a quiet absence of self, as if my soul were asleep and nothing but my body were awake. Walking thus awhile we approached a brook. Stepping stones had been so placed that it was possible to pass dry shod. As I stepped on the first stone the motion of the water made me dizzy. I uttered a little cry. Coming back my guide caught my hand, and, as if I had received a shock of electricity, strength and confidence came to me in its fullest measure. I would have walked on a tight-rope over an abyss had he bidden me, or attempted any other impossible feat. I was filled with happiness. Once

across we continued following the little foot-path through the wood for half a mile certainly, my guide always preceding me a few feet in perfect silence. At that I felt no surprise, nor did I feel fatigue after all this long journey. At length we came to an opening, and before us lay such a scene of beauty and loveliness that I never dreamed could exist. It was a valley surrounded on all sides by high mountains, laid out like a park, with houses dotted here and there, beautiful drives and winding foot-paths. Not a fence of any kind was to be seen, but clusters of beautiful trees, beds of flowers, fountains playing in the sunlight, and here and there a group of pet deer, lambs, or cattle under the shade of the trees. I exclaimed with rapture (for although he had dropped my hand after crossing the brook, the exhilarating effect of his touch had not entirely passed away) "O! where am I? Is this Paradise? Tell me, O! tell where am I!" He turned with a pleased smile and quietly looked into my eyes. I was subdued in an instant. My desire to know my whereabouts was gone. I was content to exist. One of the buildings was larger and more beautiful than the others, though each and every one I gazed upon was like the embodiment of a poet's dream. Toward that we proceeded. As we approached three little children with glad shouts of "Papa! Papa!" came bounding toward us. He caught up each in his arms with a loving, fatherly salute. We reached the door and a beautiful woman clad in flowing white, sprang into his arms. It was his wife. He spoke a few words to her, and with a lovely smile she came toward me. Grasping my hand she said, "You are very welcome." As I looked upon her I admired her; at her touch I loved her.

Beckoning to a maid that approached from the interior she bade me follow her. The girl taking my satchel from the Doctor ascended the stairs and led me into a room on the second story. I gave

a little cry of surprise ; I had never seen such a charming room, although I had passed my life in cities, and seen many beautifully furnished houses—never had I seen anything to compare with this. Dainty, luxurious, quiet and dream-like it was a poem in itself. I sank upon a chair with a sigh of relief. The maid busied herself, taking my bonnet and wrap. In a few moments she began disrobing me preparatory to taking a bath. A dressing-room connected, and soon I was indulging in the luxury of a magnetic bath. How invigorated I felt ; I began to think life was not so terrible after all. Skillful manipulations followed, and the maid bade me lie down. What a happiness it was to lie on that downy bed with its snowy coverings and lace drapery, and think of nothing ; just lie there and rest. Every nerve was relaxed, and my whole system enjoyed a grateful repose. I fell into a light slumber ; but soon I awakened, and on a table by my bedside was a dainty repast, fit to tempt the appetite of the most delicate invalid. I ate with a relish, and enjoyed every morsel, a thing I had not done for months. “Now, go to sleep,” said the maid, when I had concluded my meal, and I readily obeyed, for no sooner had she taken the tray and closed the blinds than I fell into a profound slumber, resting every nerve in my poor weak body, and breathing in the elixir of life all through that long quiet night.

It was ten o'clock next day before I awoke. By my side sat my nurse of the night previous. I observed her a few moments before she noticed I had awakened. Let me describe her as she sat with the light from the window striking on her back and shining like an aureole through her golden hair. Short and loosely curled, it formed a halo around her young and beautiful face. Her complexion was a blending of the lily and rose ; her eyes large, luminous and black. Her mouth—how can I describe it ? it was a pleasure just to look

at it. I gazed in a sort of a pleased trance, when she, noticing, said, “Ah ! you are awake, and feeling better I know. Let me give you your bath, and then you shall have breakfast.”

During the process of bathing I could hear movements in the room I had left. When I returned I found the bed newly prepared for my occupancy. Fresh linen, daintily ruffled with lace and embroidery, took the place of that I had used the night previous. All was in perfect order. Fresh flowers decorated the room. “Now get into bed and I will bring your breakfast.” I obeyed, and after a few touches here and there she left the room. Soon she returned with a delicious meal of bread, milk, fruit and eggs, served so daintily that it was appetizing to look at. After my meal which was plentiful, she said, “Now I want you to sleep again.”

Willingly I closed my eyes, for though happy and free from pain I felt languid and weak. When I next awoke it was late in the afternoon. My nurse was by my bedside. Taking my hand for a moment, she said : “You are stronger. You may get up.” She bathed my face, brushed my hair, and brought for me a white robe daintily trimmed with pink silk and white lace. As she adjusted it I felt a thrill of pleasure in the mere wearing of such a lovely garment. Placing me in a chair by the window, where I could command a view of the surroundings, she set about preparing my bed for the night, removing the linen I had used during the day.

How tranquil I felt as I rested by the open casement ! How balmy the atmosphere, laden with the fragrance of the flowers ! On the lawn three children sported with a pet lamb, while a little dog almost barked himself off his feet in his efforts to help. A small group of deer stood near viewing the children and manifesting no fear. In the distance I could see figures walking among the trees. The flashing of a fountain, and the song of birds seemed attuned to har-

mony. Suddenly I exclaimed: "Maiden, tell me if I am dead. Is this Heaven?" At this she laughed—such a pleasant sound it was—and said: "No, you are not dead. This is not Heaven, but it is the next thing to it. It is an earthly Paradise." "What do you mean?" I asked. Making a rapid movement with her hand before my face, she said quietly: "Don't ask questions. Take the good the gods send, and question not the manner of its coming. Here comes the Doctor."

I looked, and before me stood the companion of my journey. Sitting down and taking my hand, he said: "Well, how are we to-day? Better, I know, but not yet well. Tell me now about yourself." "There is nothing to tell," said I stupidly. For the life of me I could not think of a thing to say. The past had receded so far that I could recall nothing. I simply appeared to exist in the present. There seemed no past or future. He felt my pulse, made a rapid upward motion with his hand, and said, "There, now you can talk." I felt the blood start into action. Life seemed to flow afresh. My tongue was loosened, and I told clearly how ill I had been for two years, and how ignorant the doctors were of my trouble. I was getting a little warmed up with my subject when he interrupted me with: "There that will do. I understand it all. In less than a week you will be a well woman." A slight movement of the hand downward and I was quieted. Then passing his hands over my head and face he said: "I am going to give you what you've never had, a taste of the delights of the palate. You shall have your dinner, and to-morrow you may tell me what you think of it." I had a good opportunity to view him during the few moments my senses had been aroused, and I studied his face carefully. What I saw was thoroughly good. Benevolence, intelligence and power were plainly stamped upon his brow. His features were good, of a purely American type.

Calm and tranquil they looked, as if never ruffled by the cares of life. His was a master mind, and he seemed as if made to shape the destinies of many. A beard and moustache covered the lower part of his face. Large and well proportioned, he would have been noticeable in any society.

Rising to depart he stopped as two little birds hopped upon the window-sill. Taking a few seeds from his pocket he held them out toward the birds. In a minute they had perched themselves upon his hand, and began picking the seeds. "Are they tame?" I asked. "No tamer than all creatures should be, and all are that you will see hereabouts. Now see if they will come to you." He dropped a few seeds in my hand and at once the birds came for them. They showed no fear, and were apparently as well satisfied as if my hand had been but the branch of a tree. I was pleased with the novelty, and expressed my surprise.

"My child, all things were loving and lovable till sin came into the world; exorcise that, and all will be the same again." So saying, he departed.

Shortly after the maid, whose name I learned was Alethea, entered, bearing a silver tray with my dinner thereon. I was just a little hungry, not enough to give it a thought, but when I saw the viands I was pleased. As before, the dishes, napery and glassware were of the finest description, making a pleasant picture for the eye. The *ménu* consisted of bread and cream, a small bit of poultry, one or two vegetables and a luscious bunch of grapes. Nothing very remarkable, but enough for an invalid. I broke a bit of bread and put it in my mouth. Heavens! What was it? Manna, ambrosia? Certainly it was not ordinary bread. Another and another I broke and ate. I would have been delighted to make my whole meal from the bread alone.

Alethea, seeing my eagerness, said, "Don't eat all the bread at once; try

something else." I took a bit of the poultry. "What a flavor," I exclaimed; "Surely, I have never tasted anything like that. Is it bird of Paradise? Oh! it is lovely. I don't know which is the better, the bread or the meat." Smiling at my pleasure, Alethea said, "Try the vegetables." I tasted them; they looked like peas. She said they were, but surely no peas that I had ever eaten had such a delightful flavor. They certainly were not grown on earth. Filled with rapture at my wonderful discoveries I attacked the prosaic potato. Till that moment I never realized the possibilities of that much enduring vegetable. It was food fit for angels. I was in ecstasies. I wandered from one dish to the other like a bird intoxicated with delight. Each dish seemed better than the other, and each morsel better than the one previous. I ate all they had given me and, like Oliver Twist, sighed for "more." "Drink the milk," said Alethea. I complied, and O! the luxury of that draught. Could it be simply milk? I was filled with amazement at its exquisite flavor. It was even better than the food I had eaten. I could not say which of all the things I had tasted was best. Each was delightful in its way, and filled me with joy.

The whole meal was a revelation. After I had finished the milk, Alethea said: "Now I will remove the tray and let you eat the grapes slowly. Take plenty of time, and then tell me what you think of them." Turning my chair a little more toward the window she placed the plate of fruit and a napkin in my lap and left the room. For a while I sat gazing at the beautiful scene, and enjoying in remembrance that wonderful dinner. Every part of my system seemed satisfied. I was in no hurry to eat the grapes. I was too happy to disturb myself. At length I carelessly plucked one and examined its color. It was apparently a black Ham-burgh. I was especially fond of that variety, and therefore, although I did not

care to eat more decided to try one. One bite into the luscious globe and I was in ecstasies. A thousand flavors that I had never imagined to exist were in that little globule. I gave a cry of delight. "Eat slowly?" I would not have hastened that grape for a thousand dollars. I just let it melt away in my mouth. Each particle seemed to send its flavor to every nerve in my tongue. I was in a delirium of joy. I ate another and another with the same sensations. I was in a state of bliss, entrancing and overwhelming. Alethea, entering at that moment, said: "Well, how do you like them?" "Like them!" I rapturously exclaimed, "they are heavenly! Tell me, did they grow on earth? Am I living or not? Surely I never ate anything like this before. I can not believe it real." She laughed at my enthusiasm and said: "It is all real enough. You have eaten grapes before, but you never had the Doctor to animate all the nerves of taste, and so they were in a half torpid state. You never really ate a meal before this as nature first intended you should. You know now how food tasted in the Garden of Eden. But come now, you have had pleasure enough for one day. Retire and rest. To morrow you shall see more of our Eden." Gladly I exchanged my beautiful dress for my night robe, and with a grateful sigh of satisfaction laid my head upon my pillow.

S. E. SIEGEL.

TONGUE SYMPTOMS.—A few of the leading symptoms of functional disturbance, as indicated by the tongue, are thus stated: A white-coated tongue indicates febrile disturbance; a brown moist tongue indicates disordered digestion or overloaded primæ viæ; a brown dry tongue indicates depressed vitality, as in typhoid conditions and blood-poisoning; a red moist tongue indicates debility, as from exhausting discharges; a red dry tongue indicates pyrexia, or any inflammatory fever; a

“strawberry” tongue with prominent papillæ indicates scarlet fever or rotheln; a red glazed tongue indicates debility, with want of assimilative power of digestion; a tremulous, flabby tongue

indicates delirium tremens; hesitancy in protruding the tongue indicates concussion of the brain; protrusion at one side indicates paralysis of the muscles of that side.

HYPNOTISM AS A CURATIVE AGENT.*

HYPNOTISM is a most valuable method of restoring health and treating disease. Its chief value lies in the fact that it may be used as an anæsthetic, not so certain as ether, but more safe in its power of vitalizing—assisting by some change in the circulation of the blood and some alteration in the action of the nervous system—the forces of nature, which are, after all, the only curative ones.

HEALING POWER OF HYPNOTISM.

The extent of the healing power of hypnotism can not yet be known. Only after years of patient inquiry shall we be able to say what infirmities it will cure, what it will alleviate, and what it will produce no effect upon. It is not wise to be too sanguine, and it certainly would be folly to set it up as a panacea. My own opinion is that it will be of very great use in producing sleep. In our age of over-brain excitement and worry, when the struggle for success is almost deadly, sleeplessness is becoming dangerously common, and a majority of our remedies are more or less injurious if used for any length of time. Of two men in the race for success, equally gifted in other respects, the one who sleeps well will be most sure to win. Indeed, it is not at all uncommon for a man of brilliant talents to have his life almost ruined by insomnia. The hypnotic sleep is profound, sweet and refreshing. I have often heard patients declare that a half hour of it did them more good than a night of ordinary sleep, and it leaves no poison in the system to produce after-evil effects.

Besides sleep, the relief of pain by hypnotism is often almost magical. If the most severe surgical operations can be performed on one in the hypnotic condition, without his knowledge, certainly it may find a wide field in the slighter pains, which after all, in their aggregate make up most of the distress of life. Nervous headaches and those caused by exhaustion, we know, yield most readily. The pains from sprains, burns, rheumatism and lumbago may also often be cured or relieved. Neuralgia, chorea, hysteria, some forms of paralysis, perhaps epilepsy and chronic nervous exhaustion, with its long train of distressing and perplexing symptoms, will, I firmly believe, find a valuable remedy in hypnotism, especially if united with a wise hygiene.

There are some nervous states in which it seems most desirable to evoke the imagination to the fullest extent. Hypnotism will do this far better than the most extensively and boldly advertised nostrum. The excitable condition of the nervous system of the hysterical patient renders him especially subject to hypnotic influences; and when in this state, as has been proved by Braid and others since, a profound change of nervous action can be induced, which after a number of repetitions may become permanent.

BAD HABITS.

There is another class of diseases, coming often under the name of bad habits, for which we may hope hypnotism will furnish, if not a sovereign remedy, at least a most valuable one. The January number of *The Journal of Inebriety* speaks on this subject as follows:

* Abstract of a paper read by Dr. M. L. Holbrook, before the New York Academy of Anthropology, at its meeting in May, 1886.

"Professor Myers, in *The Fortnightly Review*, brings out some curious facts showing the power of a dominant idea impressed on the mind in a state of hypnotism. In one case Du Magne hypnotized a man who was an inebriate, but sober at the time, and impressed upon his mind very strongly the idea that he could not use alcohol, that it was poisonous and very dangerous. After coming out of this state the idea continued for many months, and he was a total abstainer, although exposed to temptations. Dr. Leibvauld tried the same experiment on many cases with success. He found that men under the influence of spirits could not be hypnotized, and that in some cases the impression made on the mind was very transient; in others it lasted a long time. He supposed that if the hypnotic impression of repulsion against alcohol could be repeated often it could be made permanent, and in this way made practical in very many cases. Professor Beamis reported a case where a great smoker was told, while in a hypnotic state, that he must not drink or smoke again. He followed this idea, and was able to break away, but was hypnotized and impressed many times, and the repeated suggestions came at last to be fixed thoughts.

"A theory mentioned to explain this is that alcohol paralyzes the higher inhibitory centers, while hypnotism strengthens these centers; also, hypnotism paralyzes the appetite centers, and thus counteracts the alcoholic action. It is further stated that repeated pressure of the idea of alcohol repulsion produces a shock to the brain centers, and thus alterations take place, causing permanent changes of character.

"No doubt certain sensitive organizations, under the influence of hypnotism, may be profoundly impressed by dominant and single ideas.

"To apply this in a practical way to inebriates is a new field of psychology that may have a wide future. The laws of mind over body are as yet scarcely

known, but we can rest on the conviction that science is on the track, and sooner or later the facts will be discovered, and their application made to the affairs of every-day life."

Hypnotism promises to be of great service in cases of painful parturition, and thousands will welcome its kind aid. Many years ago I became aware of this by observing its effects on a woman who had suffered from a tedious and painful labor till her strength was nearly exhausted, when a hypnotizer threw her into the hypnotic sleep, and the child was delivered without pain within an hour, greatly to the surprise of the attending physician, who had laid down to rest.

PROPER PERSONS TO HYPNOTIZE.

An important question now arises; Can any person become a hypnotizer and produce good effects, or is it a gift possessed only by a few? The general belief is the latter, and I am of this opinion. Not all who can induce the hypnotic state can produce the healing effects. Some of them produce exactly the opposite. They seem to set the nerves to vibrating most inharmoniously. Why this is we do not at present know. The firm, decided, but gentle character, whose nervous system is sound, seems to me to be best adapted to this work; though I have no doubt the power may be cultivated to a very considerable extent by all. The great difficulty at present is in obtaining reliable operators, who can act most favorably on the nervous system of the subject, and produce the most lasting effect.

One more point. May harm come from hypnotism? To this I answer, there is nothing in the world that may not do harm if wrongly used. Milk is good for babes; but too much of it is an evil. Fresh air is excellent and desirable; but to sit in a draft of it may cause pneumonia. So hypnotism by evil, designing persons, or those of a low character, may do harm, and when

crudely and ignorantly applied it may any remedy. Beyond this there need be also produce injurious effects, as may no danger.

BURNS AND SCALDS.

ACCIDENTS by which some persons are burned or scalded are of every day occurrence, and a little knowledge of simple methods by which help and relief may be given in such cases is of high value. Women and young children are most liable to be burned, because of the inflammable nature of their clothing, especially that worn in summer. A burning match is dropped upon the light, gauzy dress of a young lady, and in a moment she becomes a sheet of flame. A lamp explodes and drops of boiling oil kindle the clothing of her upon whom they fall. A child goes too near a grate-fire and her light skirts "catch," and the screams and shrieks that ensue tell the terrible result.

What is to be done in such an emergency? The best thing would be to throw the person on the ground and roll her about, and thus by pressure extinguish the flames. Unfortunately she usually is frantic, and rushes about screaming loudly; the draught, of course, increases the flames, and she becomes a moving pillar of fire.

A child may be caught and rolled in this fashion, or if a sufficient amount of water is handy it may be plunged into it. Another plan adapted to woman or child is to snatch up a rug or piece of carpet, or a blanket—if none of these are available one's own coat may be used—and wrap it around the burning person. She should be laid on the floor so that the flames shall not be inhaled and the wrapping be commenced at the upper part of the body.

When the flames are extinguished, water should be brought and poured thoroughly over the burned person to suppress any smouldering ashes that may continue to eat into the flesh. So also

in scalding by boiling water or steam, as in a boiler explosion, cold water should be plentifully poured over the person and clothing. The injured one should then be carried carefully to a warm room, laid on the floor on a carpet, or on a table, but not put into bed, (as there it becomes difficult to attend further to the injuries) and then a physician sent for at once. If the patient complains of thirst, a warm, stimulating drink should be given (tea is good for this), as after severe burning the temperature of the body immediately begins to fall, because of the shock to the nervous system. The clothing must next be removed, and this should be done with great care. A large pair of scissors or a sharp knife should be used to cut through the clothing in such a manner that it will fall off of itself. Nothing should be removed by pulling or tearing, as that may break the blisters. On no account should the attendant try to save any part of the clothing. Should any part of it adhere to the skin it must be left, only cutting around it with a sharp knife or scissors. Above all do not break any of the blisters, as by so doing the raw surface would be exposed; but when the blisters are very large, they may be pricked with a needle so as to let the inclosed fluid run out. The next thing to do is to protect the burnt surface from the air. This is done by anointing well with oil (olive, linseed, castor-oil or any bland oil at hand), or by painting the burn with soft lard, cream, fresh butter or the whites of eggs, or wrapping it round carefully with clean, soft wadding from which the outer covering has been removed.

A burn will not heal if the air is admitted to it and the surface disturbed when beginning to heal. So, if a piece

of linen be placed on the wound do not attempt to remove it, but apply the treatment afterward on the outside.

Cold water dressings at first are the best form of treatment for a burn, but care must be taken with them as with everything else that may be tried. The water should be cold, and it should be applied *constantly*. The bed-clothing should be kept dry, and when there are indications of chilliness or rigor on the part of the patient the water application should be suspended.

After the crisis or shock has passed, and the burn is found to be extensive, or much of the tissue is destroyed, a liniment that has obtained much favor, called "Carron Oil," may be applied. This is composed of equal parts of linseed oil and lime water. A few drops of carbolic acid added are said to improve it.

Flour of any kind must not be dusted on a burn; it will form a crust, which, after a few days, will cause trouble; nor must cotton-batting be put on it, for the fine particles of cotton will stick fast in the wound and set up an irritation.

Should a burn result from an *alkali*, such as lime or potash, pour no water on it, for that, by dissolving the alkali, would make the burn both deeper and wider. Acids alone will neutralize alkalies, and, therefore, the best thing you can do is to pour vinegar or squeeze a lemon over the affected part. Dilute sulphuric acid may be at hand, and will also serve. The mischief which a piece of caustic potash has done will not be repaired thereby; but you will arrest the action of this mischievous agent, and then you can treat the burn as in other cases.

In the case of injuries by acids, such as vitriol, nitric acid, etc., the application of an alkali will neutralize the acid. Whatever may be at hand, soda, lime-water, a handful of common earth, may be spread over the affected part. Water may be used freely before the alkali is applied, because it reduces the acid by dilution.

In the treatment of scalds Dr. Nai-

smith, an English physician, says: "My invariable practice, however extensive the scald, has been to place the injured member in ice-cold water, keeping it there until all pain had disappeared—say in from two to four hours, or even longer. The water heats rapidly and must be kept cold either by ice or constantly renewing. As long as the scalded part is kept under water (provided it is cold enough) no pain is complained of, and symptoms of shock are much lessened." When the limb will bear removal from the water without pain, he lays on thickly lead-acetate and resin ointment (one drachm to an ounce) and envelops in cotton wadding. He has used this ointment also in erysipelas with the best results, all symptoms of inflammation rapidly disappearing. Should severe suppuration occur, instead of the lead-acetate a few drops of creosote may be added to the resin ointment, as recommended by Druitt. By this treatment pain and shock are reduced to a minimum, opiates are seldom required, and danger to life is greatly averted.

H. S. D.

THE CURABILITY OF CONSUMPTION.—In a treatise lately published by Prof. M. Jaccoud, of Paris, with the above title, ground is taken that the consumptive may be cured at every stage. The author's conclusions are thus summarized: "The incurability proclaimed by Lænnec and his immediate successors is disproved by pathological anatomy and clinical observation. None should, therefore, allow themselves to be influenced by such an opinion, which is but an historical souvenir. When the existence of tubercles in the lungs is recognized it should not be inferred from that moment that he who has them is doomed to death because of their presence. Should it be found that the tubercles soften and a cavity forms, it should not be believed that all is lost. It has been shown that this is not the case, and the natural tendency which tubercle has to fibrous transmu-

tation, that is, to recovery, should not be forgotten. Before being discouraged the physician should search and examine incessantly whether the patient is in the requisite conditions for such a favorable evolution. If all hope of absolute recovery must be abandoned, a relative cure should be wrought, and the attempt made to place the patient in such conditions that he can live, notwithstanding the lesions which are now irreparable ;

in a word, the plan adopted should be to strive and strive always, with the unshaken confidence that may be drawn from the notion that recovery is possible. The enemy can be conquered. This is the idea that should engender and sustain every effort. It is certain that this conviction is the first condition of success, since it is absence of faith in the possibility of a cure which prevents the adoption of good therapeutic treatment."

AMATIVENESS IN WOMEN.

A MAJORITY of phrenological writers have taken the ground that the manifestation of this organ is less marked in the female than in the male. We think that close observation teaches that there may be a good deal of fallacy in this statement. At least, something may be said on the other side. In its grosser or merely animal forms, indeed, we may perceive its greater influence in the man and the boy; but the woman or the girl is of a more delicate mould generally, and, therefore, we may expect a corresponding refinement in the exhibition of this faculty in them. If we survey the actions, the conversations, the thoughts of women we may perceive that the force of the amative feeling gives a greater coloring to their whole life than to that of men. We must take into account the fact that the customs and conventionalities of society compel women to suppress largely the outward manifestation of this feeling, even in sentiment, as compared with man. Modesty holds it in greater check in the female than in the male, but the feeling is there all the same.

The girl becomes sooner susceptible to the soft feeling of love. She experiences it years before her ruder brother feels more than a passing or temporary trace of the faculty. Take the boy of twelve and the girl of the same age and witness how much greater is the development

of this feeling in the miss than in the lad. Of course, this is partly owing to the fact that the girl gets her growth the sooner. In country schools, which both sexes attend in common and play together on the same lawn, disputes and wrangles are nearly as common between the smaller boys and girls as between different boys. The girl comes under its influence first, and after the age of ten or twelve behold how great a change! After that age there is little dispute between the two sexes, and it becomes difficult to prevent their loving each other too well. The girl instinctively prefers one older than herself in the opposite sex. Other things being equal, she likes the control of a male teacher, and more readily yields him obedience and confidence than to a woman, even if she have the same teaching capacity. On the other hand the female teacher has the most patience with the boys, although they may be turbulent and unmanly. In many cases rude boys, who were the despair of the master, become strangely docile and obedient under the care of a gentle mistress. In former times it was thought that none but strong men were capable of governing schools, and they had to do it by main force and awkwardness. Now two-thirds of the teachers of the public schools are women, and often mere girls at that.

Again, compare the power of the love

feeling in the female between the ages of fifteen and thirty with that shown in men of the same age. It is powerful in both—the most powerful of the animal faculties that link man to earth. But in the girl or woman to how much greater extent do the affairs of love engross the attention compared with their influence upon the young man. He may have his special attachment, but his thoughts are not all given to it by any means. Business, study, work, amusement, occupy a larger proportion of his time and thought. In which sex does the novel, whose principal ingredient centres upon love, find the most eager readers? Women, certainly. More often than man does the woman, who fails to find her mate, end her days in the lunatic asylum. A certain proportion are destined to become old bachelors and old maids. The writer who said that men sometimes might remain unmarried from choice, but that never a woman did so, may have slandered the sex, but he probably intended to be understood in this way, that the amative feeling had greater power over

woman than man. The deprivation of the marriage state has a more depressing and deleterious effect upon woman than man, because she more strongly longs for affection, and more keenly suffers from the lack of certain magnetic influences connected with the matrimonial condition. How much more interested are women than men in reading or talking about weddings and marriages! Take two sisters or cousins of equal age, good looks and health. Let one get well married, and the other remain single. At the end of a dozen years compare the two, and see how much more fresh and even-toned is the married one compared with the old maid, although the former may have borne children, and the latter have had ease and freedom from care. The one was in her natural state; the other was not. The one had been solaced and cheered by love; the other had not. The charms of the one were retained by the preserving power of certain subtle magnetic forces which the other had not felt.

M.

THE BREATHING FUNCTION.

WHY do we breathe? "To carry air into the lungs." That is true; but that is not all the truth. We breathe air into the lungs so that we may get oxygen into the blood. Oxygen is the most important food of the body. It is estimated that one-half of the body is made up of oxygen, so that there is a constant demand for it. We can not feed the lungs two or three times a day, as we can the stomach; the supply must be constant. We often think, when we are hungry, that it is the stomach that is asking for food, but in reality it is every part of the body that is saying, "I'm hungry." So with thirst. It is not merely the mouth and throat that want water; it is the blood and all the tissues that cry out, "We are thirsty." And when we feel suffocated, and gasp for breath, it is a cry of the whole body for

oxygen. Sighing, from whatever cause, is evidence of lack of oxygen in the blood; the same is true of yawning.

You must not think that the lungs are filled and emptied at every breath, for it is not so. But before I say more on this point I must talk to you a little about cubic inches. Now, don't pout and say, "I don't like figures, they are not interesting," for you may be mistaken; and you ought to learn about cubic inches, for that is the way volume is measured. Do you know what a cube is? Baby's letter blocks are cubes. If you examine them you find that each one has six equal sides, and all its angles are right angles. If each side is an inch square the whole block would be a cubic inch. A pint cup holds about thirty cubic inches, and that is nearly the amount of air that, in a grown per-

son, goes in and out with every breath. This we call tidal air. But if we try, we can take in more air—about one hundred cubic inches. This is called complementary air; and be sure you spell it with an *e*, and not an *i*. If we make an effort we can breathe out more than the pint of tidal air—about one hundred cubic inches—which we call reserve air, for we have it in reserve to use when we run or work hard. But there is a like amount which we can not breathe out which is called residual air, so that you see the whole capacity of the lungs is about eight pints, and this we call the vital capacity; that is, our ability to live. But if only one-eighth of the air in the lungs goes in and out constantly, how can the blood get oxygen and give up its carbonic acid gas? You will understand this when I tell you that the Gas family have a very familiar way of associating with each other. If you fill a cup full of water you can not put in another cup full of water or milk without making it run over; but that is not the case with the Gas family. You could fill the cup with oxygen, and then with hydrogen, and then with nitrogen, and the cup would not run over. Each would fill it, and yet all of them together would fill it no more than full. This is called the diffusion of gases, and it is because they mix with each other in this way that oxygen circulates throughout the lower parts of the lungs.

There are millions of active little fellows called Cilia, which are like little short hairs growing all along, and standing out from the bronchial tubes, who assist in this work. They are always in motion, lashing the air and driving it from within outward, and thus aid in distributing the gases upon which the aeration of the blood depends.

What a fine thing it is that all this wonderful process of cleansing the blood and providing oxygen for the tissues is not dependent upon our thought! Night and day we breathe without thinking about it. Yet we ought to

think about it enough to provide ourselves with as pure air as possible; to give our lungs plenty of room to work; and to use the proper muscles in breathing.

We should never forget that oxygen is food for the blood and tissues, and should be as free from poison as any other food of the body. We should let *Aura* (the air) come freely into our living and sleeping rooms to cleanse them of all impurities, but we should be careful that she does not take into the lungs with her any such poisons as tobacco; for smoke is even more hurtful to the delicate structures of the lungs than to the eye, and we would never put tobacco smoke into our eyes. The pollution of wells, rivers, and lakes is punishable by law, and we have an equal right to demand that the air we breathe shall also be free from pollution. It is more than rudeness, it is morally wrong and is it not even a crime for tobacco-smokers to poison the air which their neighbors must breathe? We should insist upon it as far as possible that *Aura* should enter the laundry of our House Beautiful, as pure and sweet as God has made her. We should also insist upon it, by night and day, that she should enter and depart by the door which has been provided for her, and never by the pink folding-door, unless in a great emergency. There is one very curious thing about her coming in at night. If, while we are asleep, the folding-doors drop apart, she creeps in through them, not quietly, like a thief in the night, but with a queer noise, a gurgling, rasping and blowing sound as if she were trying to waken us up to shut the door. This is what we call snoring, and is not only an unpleasant but an unhealthful habit. Be sure to shut the folding-doors tightly when you go to bed, and keep them shut. And to do this you must keep them shut during the day when not obliged to open them. It gives a very foolish expression to the face, to go with the mouth open. If

you wish to look and feel brave and courageous, close your lips firmly together. If you wish to keep dust and germs of disease out of your lungs, keep your mouth shut when you breathe. If you wish to have a clear, sweet voice; to avoid colds; to look as if you knew something; to avoid sore throats and coughs; in short, if you wish to be healthy, wealthy, and wise, shut your mouth and open your eyes.—*The House Beautiful*.

TO AVOID CONTAGION IN SMALL-POX.

1. On the first appearance of the disease, the patient should be placed in a separate apartment, as near the top of the house as possible, from which curtains, carpets, bed-hangings, and other needless articles of furniture should be removed, and no person except the medical attendant and the nurse or mother should be permitted to enter the room.

2. A basin containing a solution of carbolic acid or chloride of lime should be placed near the bed for the patient to spit in.

3. Handkerchiefs should not be used, but pieces of soft rags instead, for wiping the nose of the patient. Each piece after being used should be immediately burned.

4. A plentiful supply of water and towels should be kept for the use of the nurse, whose hands, of necessity, will be soiled by the secretions of the patient. In one hand-basin the water should be impregnated with Platt's or Cody's chloride, by which the taint on the hands may at once be removed.

5. Outside the door of the sick a sheet should be suspended, so as to cover the entire doorway; this should be kept constantly wet with a solution of lime. The effect of this will be to keep every other part of the house free from infection.

6. The discharges of the bowels and kidneys of the patient should be received into vessels charged with disinfectants,

such as the solution of carbolic acid or chloride of lime, and immediately removed. By these means the poison thrown off from internal surfaces may be rendered inert, and deprived of the power of propagating disease.

7. The garments and bed clothing of the sick should be placed in a disinfecting fluid until boiled in the wash. Such a fluid may be made thus: Dissolve together in water in the proportions of four ounces of the zinc sulphate and two ounces of salt to the gallon of water.

A WET SHEET PACK.—This valuable process in water treatment may be briefly described as follows:—Have ready two or three comfortables or thick blankets, one woolen blanket, and a large linen or cotton sheet. It is important to be certain that the sheet is sufficiently large to extend twice around the patient's body. More blankets are required in cool weather than in warm, although the pack should be taken in a room at temperate heat. Spread upon a bed or straight, broad lounge the comfortables, one by one, making them even at the top. Over them spread the woolen blanket, allowing its upper edge to fall an inch or two below that of the last comfortable. Wet the sheet in water of the proper temperature, wring out so that it will not drip, then gather the ends so that it can be quickly spread out. Now place its upper end even with the woolen blanket, and spread it out on each side of the middle sufficiently to allow the patient to lie down upon his back, which he should quickly do, letting his ears come just above the upper border of the sheet, and extending his limbs near together. Wrap the patient snugly, carefully first with the sheet and afterward with the blanket, taking care to exclude air from the neck to the toes. After the bath give the patient a cool or tepid sponge bath, or a wet sheet rub, and he will probably feel greatly refreshed and invigorated. This form of bath is particularly useful in diseases of a febrile type.

BAKING-POWDERS.—We hear a great deal of the comparative “merits” of different brands of baking-powders. Long advertisements are seen every day in the newspaper, usually containing special analyses and commendations from chemists, and the public is assured that nothing deleterious is contained in “our preparation.” In a number of the *Journal of the American Medical Association* this subject was discussed, and a conscientious statement made that should have more publicity than a class publication can give it.

The writer said in the course of his remarks:

“To make the matter clear, it may be stated that the average baking-powder is composed of bi-carbonate of soda, cream of tartar and starch, with a possible admixture of other things. The continued use of even the purest baking-powder will effect the system seriously, commencing with only a slight derangement of the digestive organs, which gradually becomes chronic, changing the secretions of the stomach not necessary for digestion (muriatic acid); in fact, altering the whole chemistry of the human stomach.

“The continued use of alkalies in any form injures the health. Look at the alkali country west of us, where the alkali is found in the *drinking water*. The same dangers will arise from the persistent alkaline medication of our *daily bread*. The various forms of dyspepsia, bladder troubles, Bright’s disease, consumption—the newest researches speak about a wrong proportion of the alkalies in this disease—are only too often caused by this modern substitute for the old, time-honored, practice of using yeast.”

TEMPERANCE MINCE PIES. — W. T. says: A recipe has been going the rounds of temperance papers which is misleading to the good housewives who have determined to keep the treacherous monarch, King Alcohol, out of their

domiciles. The thrifty woman who launched the recipe, in all guilelessness, we candidly believe, had not studied chemistry, or she would have known that the reason of the “growing better” was the generation of alcohol by the “compatibles” in her mixture, the alcohol of course operating as an antiseptic or pickle. If people *will* eat mince pies and insist on teetotalism also, they must not permit the mince-meat composition, apples, raisins, and all, to stand.

HYGIENIC BILL OF FARE.

1. Bread and milk with fruit.
2. Bread and whipped eggs; honey.
3. Bread and boiled eggs; apples (Roman).
4. Bread and butter; rice-pudding with sugar and milk.
5. Corn bread and butter; roasted chestnuts; honey, grapes (Corsican).
6. Oat-meal porridge and milk; fish, bread and butter (Danish).
7. Poached eggs; pancakes with honey or syrup; bread pudding; hot milk.
8. Vegetable soup; baked beans; potatoes and butter, biscuits and apple dumplings.

GOOD OATMEAL MUSH.

A visitor, who seemed to be
 Enjoying most exceedingly
 The fare at morn, declared, “I ne’er
 Such oatmeal tasted; tell me where
 You get it, then I’ll surely go
 And order twenty pounds or so.”
 “My friend,” I said, with earnest look,
 “’Tis not the grocer, ’tis the cook
 Deserves your praise.” “Indeed,” she cried;
 “O, will you not at once confide
 The secret of the wondrous charm
 That here is found? Indeed, the palm
 Your cook may take, and ode or sonnet
 You might in truth, expend upon it.”
 “The charm,” I said, “is simply this—
 Which epicure should never miss—
 Boil e’en from morning until night,
 The day before you use it. Bright
 And early you may rise, and then
 Put on your meal to boil again.
 Don’t let it scorch or burn, to spoil
 The flavor; only boil—and boil—and *boil*.”
 D. H. Thayer.

NOTES IN SCIENCE AND INDUSTRY.

Steel under the Microscope.—

It is claimed that, under a powerful microscope, the relative conditions of the iron and carbon particles in steel may be definitely determined. The fine granular appearance of steel, so well known when closely examined under the microscope, is found to consist of a multitude of minute cells, the nucleus of each cell being formed of iron, and carbon forming the outer skin. The statement is, that the investigators who have made this interesting discovery expect to be able, in the course of further researches, to demonstrate the position that impurities, such as phosphorus, sulphur and silicon, are held in the structure of steel. It is thought that this line of inquiry will be likely to produce important results, in showing exactly the structural changes that take place in steel, under conditions approximate to what it has to endure in ordinary service—there being at present but little real knowledge respecting the changes that take place in the internal arrangement of metals under such circumstances.

The Extinction of Kilauea.—

On March 6, the active volcano of Kilauea, in the Sandwich Islands, composed of the old Lake Halemaumau and the New Lake, sank from the bed of the crater, leaving a bottomless abyss about four miles in circumference. The volcanic eruption which has been so active in the past was utterly extinguished.

During the latter part of 1885, both lakes were very active, and boiled and surged from side to side with unusual violence. In the middle of December the New Lake commenced building a wall for itself, which by the first of March had covered its surface. On the evening of the 6th, both lakes were full of boiling and surging lava, and were particularly brilliant up to half-past nine o'clock. At that time a series of earthquake shocks began, forty-three in number, which lasted until half-past seven the next morning. After the fourth shock the fires of the New Lake had entirely disappeared, and only a slight reflection from Halemaumau was visible. During several days following cracks and rents were made in the surrounding wall, and immense quantities of steam and vapor rose above the crater. Several upheavals occurred to change the entire con-

figuration of the immediate surroundings. Large portions of the edge of the crater fell into the gulf with a sound like thunder. The cone in the New Lake disappeared entirely, while the bottom of the lake can still be seen 500 to 600 feet below its former level; but of Halemaumau nothing is visible but a gaping abyss, four miles in circumference.

Brain Centers for Touch, Sensibility, and the Muscular Sense.

—Dr. W. Bechterew, in a communication to the *Neurologisches Centralblatt*, No. 18, stated his reasons for believing that such centers really exist on the surface of the hemispheres. Hitzig and Nothnagel thought that after extirpation of the motor area of the brain there was a loss of muscular sense; but Bechterew states that he could not, in his experiments, satisfy himself that, after extirpation of the motor area to the hemispheres, if the lesion did not pass beyond the bounds of this area, such a loss of sensibility really existed. If the animal allowed its paw to rest in inconvenient and unaccustomed positions, this was from the awkwardness of its adjustments, owing to the injury of the motor power. Dr. Bechterew makes no reference to the observations of Goltz, who stated that after a removal of any considerable portion of the cortex there was a loss of sensibility on the opposite side of the body.

Having come to the conclusion that the center of sensation for the skin and muscle must exist apart from the motor area, Dr. Bechterew sets himself to look for these centers behind the median gyri. Avoiding the parts already set off to Ferrier and Munk, he finds a considerable area quite unoccupied. The motor functions of this extensive region, which in the human brain lies in the parietal lobe, has not been ascertained by any physiologists. Munk, it is true, has made some claims on this area as centres for the sensibility of the eye and head; but to this Bechterew objects that such a large surface of brain can not be put apart for the sensibility in so small a part of the organism. Dr. Bechterew arrives at the conclusion, from his experiments on dogs, which occupied several months, that after destruction of these parts there were marked alterations of sensibility, and he finds that lesions of particular parts induce derangements of

touch alone, or of the muscular sense of sensibility to pain.

Travel on the Brooklyn Bridge.

—It is interesting to note the amount of traffic on the Brooklyn Bridge. A detailed record made recently shows that the total number of passenger-car tickets sold in one day was, on the New York side, 32,146; on the Brooklyn side, 38,091. Total, 70,237. The hours of heaviest travel from New York are from 5 to 7 P. M., when 14,581 people used the Bridge cars; and from Brooklyn from 7 to 9 A. M., when 15,353 persons rode across the Bridge. On the carriage-way the traffic was as follows during a period of 24 hours:

From New York—One-horse teams.....	1,255
Two-horse teams.....	432
Led horses.....	81
Passengers (exclusive of drivers of vehicles).....	442
From Brooklyn—One-horse teams.....	1,413
Two horse teams.....	481
Led horses.....	66
Passengers.....	446

On the foot-way the total number of passengers was 4,925 from New York, and 2,914 from Brooklyn, making a total of 7,839. The heaviest hours of this travel were the two from 5 to 7 P. M., in which the total number of passengers from New York was 2,467. The largest number of foot passengers from Brooklyn in any one hour was 479, between 7 and 8 A. M. The total receipts on the Bridge during one day amounted to \$2,122.74.

Iron that will not Rust.—The liability of iron to rust is a great drawback to its use for many purposes, and the practical value of a process which will protect it, at a slight expense, is self-evident. That the process is successful in accomplishing this object seems no longer a matter of doubt, and at less cost than galvanizing or tinning. The color on cast and wrought iron is a bluish-gray, which to some may be objectionable, but, as the coating takes paint far better than untreated iron, this objection is easily overcome, and with the assurance that the paint will remain, and not soon be thrown off as it is generally. For polished work the color is a lustrous blue-black, adding greatly to the beauty of the article treated. This process seems peculiarly well adapted for gas and water pipes. Any one who has had occasion to use water which has passed through a new iron pipe, or one that has not been used

for some time, knows how full of rust it is, and that only after months of constant use does it become clear again. With pipe coated with the magnetic oxide by the Bower-Barff process, no trouble of the kind can occur. The water runs pure from the first day, and if for any reason the pipes are emptied, and left so, there is no danger of their becoming coated with rust. Another important fact is, that the water coming through one of these rustless pipes is just as pure as when it entered, for the water can dissolve none of the coating of oxide, as it always does with lead or galvanized pipes. It is a well-known fact that water running through lead pipes is very apt to contain lead in solution; and the continued use of such water causes lead-poisoning, for, although the amount (of lead) dissolved may be very small, still it accumulates in the system, and finally causes sickness and disease. —*Pop. Science Monthly.*

Wonderful Fruits, etc., Fraud.

—Our farmers scarcely need to be reminded to keep on their guard against impostures. *Farm and Fireside* refers to a fraud that some will remember: "Some years ago a tree agent went around selling a wonderful 'custard apple.' The most fabulous stories were told of the hardiness and productiveness of the trees, and the luscious character of the fruit. The trees were sold at an enormous price, being so new and so valuable; but when they were received by the confiding purchaser, they proved to be nothing but the common pawpaw! There is a valuable lesson here, if it could but be heeded, and that is that there is no possibility of the discovery of any new fruit or grain that will greatly distance our common varieties in any respect. The world is too old and every nook and corner of the habitable portion too well explored for this. Hence, when you see or hear any great claims made for the astonishing productiveness or wonderful hardiness of any new plant, you may set it down as a fraud. Some varieties are better than others, of course, and a few of our varieties to-day are double the value of those known a century ago; but this increase was not made in a day nor in a year; it was the result of year upon year of patient experiment."

A Store Parcel-Carrier.—A number of systems have been introduced to take bundles from the counter to the office and

bring them back tied up and accompanied by the change due the customer, without the aid of those interesting, but expensive, little fellows called "Cash". The most complete apparatus is called the "Blickensderfer Conveyor System," and is now in successful use in many of the large dry-goods houses of the country. The first impression one receives from a view of this apparatus with freight-laden baskets running rapidly along, is its complexity. How can these things run around corners, and do all their work so perfectly without getting out of order? But a little study reveals the simplicity of the whole arrangement. The motion is obtained by attraction of gravitation; the stations to which each basket belongs is reached by a special arrangement of the cogs in a wheel; and the curves are turned easily and smoothly. A child with a moment's instruction can send articles to the office and have them returned in a surprisingly short time; and the bane of nearly all such inventions—getting out of order—is reduced to a minimum by the ease and simplicity with which it works. The baskets are arranged according to the nature of the merchandise to be carried; and an umbrella or a spool of thread are each as easily conveyed. The system is not sold, but rented at so much a year per station.

How a Valuable Process in Iron was Stolen.—A little more than 100 years ago the manufacture of steel had a beginning in England, and about that time there was living in Sheffield a man by the name of Huntsman. He was a watch and clock maker and he had so much trouble in getting steel that would answer for his springs he determined to make some himself. He experimented for a long time, and after many failures hit upon a process that produced a very fine quality of steel. The best steel at that time was made by the Hindoos and it cost in England about \$50,000 a ton; but Huntsman could make his for \$500 a ton. He therefore found a ready market for all the steel he could make, and determined to keep his invention secret, and no one was allowed to enter his works except his workmen, and they were sworn to secrecy. Of course, other iron and steel makers were very desirous of finding out how he produced the steel he made, and accomplished it at last: One dark and cold winter night a wretched looking beggar knocked at the door of Huntsman's works and asked shelter from the storm that was raging without. The workmen kindly gave him permission to come in and find warmth and shelter near one of the furnaces. In a little while the drowsy beggar fell asleep, or

seemed to do so, but beneath his torn and shabby hat his half-shut eyes watched with eager interest every movement made by the men about the furnaces, and as the charging of the melting-pots, heating and at last pouring the steel into ingots took several hours, it is hardly necessary to add that the forgotten beggar slept long, and, as it seemed, soundly, in the corner where he lay. It turned out afterward that the apparently sleeping beggar was a well-to-do iron maker living near by, and the fact that he soon began the erection of large steel works similar to Huntsman's was good evidence that he was a poor sleeper but a good watcher.

Birds the Farmers' Friends.—

Notwithstanding the fact that there exists a prejudice against many of the feathered tribe, we still incline to the opinion that if we should enact wholesome laws which would protect the birds and banish the cats the whole country would be better off financially, and one nuisance at least be abolished. A lady friend who has traveled quite extensively abroad says that in those countries celebrated for vast amounts of luscious fruits there are laws which protect the birds, in other words, *there* they have birds and fruit, while here we have cats and worms that destroy the fruit or render it unfit for use.

We have allowed our friends, the insectivorous birds, to be wantonly destroyed all over the country, and a war of extermination is still going on in communities where we might expect better things. There are but a small number of causes which might be named, all working together, and resulting in giving noxious insects the advantage over the husbandman, and bringing disastrous consequences where good would come if an entirely different course was pursued. We know that all are apt to curse the robin at cherry time. We listened to the complaints of sufferers, and reluctantly deprived one bird of his life, examined the contents of his stomach and found 75 per cent. to be insects, a few seeds, and the rest fruit. He was shot while apparently stealing cherries. A farmer friend cursed the crows that pulled his corn, we found some in a field, shot one, examined his stomach, and found much more of the contents to consist of grubs, flies, worms, carrion, etc., than of corn, although he was "investigating" when shot, and we venture the assertion that if let alone, allowed to pull corn, as much would be raised to the acre as without his presence. We could go on and enumerate case after case of other examinations corroborating these. Make phosphate of the cats, drive away the hunters, encourage the birds, and better crops will ensue.

J. F. ELSOM.



FOWLER & WELLS COMPANY, *Publishers.*

H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK, AUGUST, 1886.

LATENT FACULTIES.

IN our studies of physics we learn of "latent energy," "latent heat," &c., but with our learning of these things is included the fact that something is necessary for the exhibition of "latent" qualities. They do not manifest themselves unless something is done to the body in which they exist; some external force must be applied, else the "latent" property will remain unknown. Some writers on human character speak of "latent" powers that on occasion show themselves in the conduct of men, and impart a very unexpected type of intelligence or spirit. A man who has passed for a mild, retiring, diffident person among his acquaintances, in an emergency, when most of those around him are confused and powerless, suddenly manifests a courageous, undaunted spirit, prompting others to be firm and setting on foot immediate measures for the protection of all, may be said to have developed latent powers of boldness and authority. It sometimes occurs that a person, who has been considered rather close and even niggardly in his money affairs, on the occasion of some great

public or private sorrow, and there is need for immediate pecuniary aid, shows to the great astonishment of all a most cheerful and persistent liberality. He develops a latent power of Benevolence. In these cases no new organ was created in the central tissue, but organs already existing were awakened to activity, and manifested their normal functions at the time of need. The expression of faculties is much more dependent upon culture and the influence of circumstances than phrenologists are generally inclined to believe. So much attention has been given to the intellect in both home and school training that in the majority of men the moral faculties are in a repressed, morbid or latent condition; they may be naturally strong, yet, through neglect and the artificial restraints imposed by a hard-and-fast system of intellectual training, not indicate their tendency. They may be far from weak by inheritance, yet an injudicious course of discipline in youth may awaken into great activity the selfish elements, and these when no longer restrained by external circumstances, may control intellect and all. Such, we think, was the case of Ludwig, of Bavaria. The history of that unfortunate king begins with a childhood and youth evidently misunderstood and injudiciously directed; so that powers naturally good, traits that might have been developed into beneficent and noble influences were dwarfed and perverted, and made for the most part subordinate to extravagant caprices and selfish ambitions.

Men as a rule are conscious of forces and capabilities that they do not exercise. One will go on for a year in a dull, desk-bound routine, passively executing the

commonplace duties assigned by an employer. A change comes; he is compelled to leave the old chair or stool and confront the outside, striving world, and soon he becomes as pushing, energetic and persistent as any, and wins successes that were thought entirely beyond the range of his action. The pressure of necessity has awakened to vigorous life certain practical faculties that had apparently little to do in the old relation. Doubtless though they exerted some influence in keeping the man to his everyday routine; operating as a low under-current of energy, latent to the world, but to him a conscious force that only lacked opportunity for open, efficient expression.

Some of our best powers are kept in a latent state; those especially that belong to the kindly, humane side are too much repressed, and, as a consequence, we do not obtain from life half the satisfaction, half the joy that might be ours. Why do we, why should we bury our better natures beneath cold mannerisms, haughty arrogance, gloomy reserve, incessant self-seeking?

THE CRISIS IN GREAT BRITAIN.

A GREAT crisis has come in the political affairs of Great Britain, and one that is fraught with such possibilities of disaster to Church and State as comparatively few of us, mere looker-ons, can conceive. The project of Home Rule, forced upon the consideration of Parliament not by the Liberal ministry of which Mr. Gladstone is the head, but by the steady growth of Irish influence in imperial affairs, and the spread of democratic sentiments among the people of the United Kingdom, is the all-

absorbing subject with all classes, and the issue on which hang the fortunes of the Liberal and Tory parties.

From the bitter animosity shown by the Tories to this Home Rule movement one unacquainted with English history would infer that it owed its origin entirely to Liberal sympathy with Irish demands for a Dublin Parliament, whereas the record shows that among the most prominent advocates of a restoration to Ireland of the old authority to govern herself were many Protestant Conservatives. It is interesting to note this fact, because one of the points urged most strongly by the opponents of Home Rule is the hostility of Protestant Irishmen to a separate government. On the 19th of May, 1870, a meeting was held in Dublin, for the consideration of what was needed to advance the welfare of suffering and disturbed Ireland, and a resolution to the following effect was unanimously voted:

"That it is the opinion of this meeting that the true remedy for the evils of Ireland is the establishment of an Irish Parliament with full control over our domestic affairs."

There were about sixty persons in attendance at this meeting, of whom fully two-thirds were Protestants, and representing the Bench, the Church, Trinity College, the Army, the Dublin Press, besides members of Parliament, government officials, and gentlemen of distinction in the business world. Those who took the leading part at this meeting were of the Conservative stamp politically. In the circular that gave expression to the opinion of this meeting occur statements of this nature:

"But we feel that the scheme of one

Parliament for all purposes, imperial and local, has been a failure; that the attempt to force consolidation on the Irish people, to destroy their national individuality, has been simply disastrous. However attractive in theory for the imperial statesman, the project has utterly broken down in fact and reality. It has cost us perpetual insecurity, recurrent insurrection. It may suit English politicians to cling to the experiment still, and pursue it through another fifty years, always 'just going to succeed this time'; but for us Irish Protestants, whose lot is cast in this country, and whose all in the world is within these seas, it is time to think whether we can not take into our own hands the solution of the problem."

Here was the beginning, we are told, of the movement which has rolled onward until the grand political fabric of Britain reels under the shock of its wheels, and even a sanguinary revolution seems impending. Will Home Rule succeed finally? Who can answer this? It seems altogether likely; for amid the confusion and smoke of the conflict of factions the representative spirit makes its power fully known in every quarter of the Kingdom, Scotsmen, Welshmen and Englishmen joining in the clamor for more liberty before the law, and less class privileges. We merely echo the wish of every friend of England in saying that we hope justice will be done, and that speedily, in this matter, and the best plan for restoring order to the Emerald Isle and promoting its substantial welfare be adopted.

LET THE WOMEN SET TYPE.

WE have supposed that among the industries open to women that of com-

position or typesetting was one for which they are well fitted; but the trade contests of late have developed a strong opposition to women being employed at the "case," and reasons of all complexions are set forth in support of what at first sight appears to be a movement born of prejudice and selfishness.

In England the Typographical Union attempted to break up Miss Faithfull's printing office, the well-known Victoria Press, which for several years has been in operation, and was established to give employment to needy women. It was urged by the apologists for the Union that women do not make good compositors, whereas the work done in the Victoria Press rooms would stand comparison with that of printing offices filled with men. It is averred by some that there are physiological reasons against such an employment for women. If so, why do they not apply with even greater force to sewing-machine work, cigar-making and the long hours of service performed by thousands in cotton, silk and other factories.

So far as our own observation is concerned we are on the side of the woman-compositor. Some of the best proof-sheets that we have occasion to examine are "pulled" from type put together by women, and so far as its effect upon their health is concerned, we have been impressed that of the two sexes pursuing the trade in the same office, the women had the advantage in apparent physical condition.

The bitter hostility shown to the attempts of woman to earn her living in many departments of industry is unworthy of the age and discreditable to manhood. The exhibitions of intolerance and selfishness, made not only by

rude artisans but also by educated men in professional walks, on account of the reasonable demand of women to be allowed to do that which they can do well, almost persuades us that very little of the old chivalric spirit survives in our day. We deprecate the fact that so many of our sisters are compelled to go into the world and labor where they can for daily bread. It clashes with our home sentiment; but as it must be we would not have their struggle, hard enough at best, made doubly bitter by cruel persecution at the hands of those they were taught to consider their natural protectors.

DOWN WITH THE PISTOL!

CAN not the pistol be divorced from liquor drinking? or is public sentiment as strongly in favor of the use of one as of the other, so that an attempt to suppress or prohibit by law the indiscriminate snapping of loaded revolvers by careless boys or liquor-heated men would be futile? Has the public become so hardened to the daily occurrence of shooting affrays, "accidental" murders, and deliberate murders, to say nothing of the miscellaneous cases of the ignorant or careless use of pistols, whereby life is constantly endangered, that it takes all such occurrences as mere items of current news? Is it utterly vain to appeal to the commonsense of the community with regard to this matter? Are the intelligent and decent and order-loving part of our population contented with the situation? Are they satisfied that it is right for excitable young men, and even boys to go about the streets with loaded revolvers in their hip pockets, and to flourish them in the home-circle to the

terror of mothers and sisters? We have challenged attention to this subject before, and we shall repeat the challenge. Argument is unnecessary. Our readers know the terrible evil of promiscuous pistol selling and pistol carrying—will they not join us in the cry against it?

A STREET NOTE.—We were crossing West street the other day, near one of the ferries of the Pennsylvania Railway, when we heard some jeering cries. Looking around we saw a hackman carrying a little colored child, a woman, evidently the mother of the child, following with two or three large bundles in her arms. The hackman signaled a horse-car, politely waited until the woman had entered it and then handed in the boy. The jeering was by certain half-grown boys and hackmen who found in an act of manly kindness an occasion for rude gibes and taunts. We could not but stop a moment and look admiringly at the man who, at the risk of losing a passenger, had left his post to help a poor travel-worn colored woman, encumbered with luggage, through the confusion and press of a crowded street crossing, and put her in the right way to her destination. It was a prompt, spontaneous act of generous sympathy, done without attempt at ostentation, and without any thought of reward. We knew by his expression that he was pleased to be of service where scarcely one in a hundred of so-called philanthropic people would think of offering a hand. The indifference shown to the coarse sneers of his fellows of the whip won our admiration, and we passed on with lighter step and a happier heart for such an expression of true nobility of soul.

Our Mentorship Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

To OUR CONTRIBUTORS It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication :

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

LOCALITY A DERIVATIVE. — J. B. — In styling Locality as a conception that is derived from such primary ideas, as Form and Size, and not a special faculty in itself, Mr. Bain fails to explain the evidently independent action of the instinct of place, as it is shown in animals. It was stated by the editor in the June number that horses, dogs, cats, pigs, birds, bees, etc., would find their way surely from one place to another

by a direct course, and in a neighborhood that was entirely new to them. So, too, some children have the power to go about strange towns and return to their homes in safety. Form, Size, Color and other perceptive organs may be altogether employed by the careless child in looking at the different scenes through which he passes, and one scene is forgotten when the next engages his momentary attention. The idea of returning home does not enter his mind until he becomes hungry or weary, and then turning about he makes his way home by a course that is different from that irregular one which he carelessly pursued in his hunt for curiosities. The instinctive exercise of the power as shown by birds, does not warrant us in claiming for Locality a mere derivative or associated action. Whence comes it that the young carrier pigeon will wing his flight almost in a direct line for home, from a point a thousand miles distant, and to which he has been taken in a covered cage? Or how can the dog find his way through a strange country? Or the cat, dropped from a basket, miles away from her natal place and at night, how does she manage to reappear next morning at breakfast time in the familiar kitchen? If there is no faculty of Place what gives some boys their remarkable ability to travel about, scout the woods and never lose themselves, while other boys of higher intellectual parts, are easily confused much and set wrong when going about. If power to compare and to consider the relations of objects gives rise to the conception of place and direction why is it that we sometimes find ignorant and rude sailors better navigators than educated officers of the quarter-deck?

DIET FOR THE SEDENTARY. — CONCLUSION. — You have taken your breakfast at seven o'clock, we will say. It would be well not to take your dinner until the hard work of the day is done, say at four or five o'clock, and then you should eat and can eat with that leisurely deliberation which is essential to digestive integrity. Men engaged in pursuits which employ the mind mainly, who go at twelve or one o'clock from the

midst of absorbing duties in the office or counting-room, to the nearest restaurant and swallow hastily a lunch, which if spread over a reasonable space of time would be a pretty substantial meal, return to their business engagements with a sense of dissatisfaction with the restaurateurs's service, and after a little while experience an uncomfortable feeling of dullness and indisposition for work, with perhaps pain in the stomach. In fact, brain and stomach are in conflict, each demanding blood and nerve power for the performance of its functions, and the man is consequently in no condition to prosecute his work with ease. His persistence in the attempt to perform it in spite of nature's protest, must in the end prove harmful, and does, to both brain and stomach, inducing dyspepsia on the one hand and nervous derangement on the other. Thus hundreds of our excellent business men are broken down in health in mid-career.

For your afternoon dinner take a reasonable amount of food. Brown bread, a good soup of peas, or beans, or tomatoes, or rice, or vermicelli, or barley, boiled oatmeal, baked hominy, pudding of corn-meal, farina or rice, with plain dressings, boiled or poached eggs, a small slice of beef, mutton or poultry used occasionally by way of variety; fruit, of course, apples, baked or stewed, plums, peaches, tomatoes, pears, cherries, etc., supply a variety from which to choose, and a liberal dish should be disposed of. Of the roots and vegetables, dinner being the best time to eat them, I am inclined to prefer potatoes, green peas or beans, lettuce, celery and cauliflower as being not only toothsome, but easy of digestion. Fish, if you like it, may be substituted occasionally for the flesh-meats mentioned, but select the sorts which are comparatively free from oil, as the halibut, cod, weak fish, bass, blue fish, trout, pickerel and perch.

I have indicated a good variety of articles, and there are many which might yet be mentioned. But I must leave them to your judgment for consideration, always wishing it to be understood that you should not crave a profuse variety at a single meal, for a large assortment of dishes generally leads one to over-eat, if his appetite be good. After dinner, if you must return to the desk again, take an interval of rest, an hour, if you can have it, and when you return to your work let that be of a light sort, and the

hour or so spent at it will not affect unfavorably the process of digestion. If you do not return to business, moderate exercise out-doors during the daylight which remains will be beneficial.

CATARRHAL TROUBLE.—E. B.—To answer your queries we should require a volume, but in our advice to a man of sedentary habits, in the last and this number, you will find some hints. In the books "Digestion and Dyspepsia," "Health Catechism," "How to be Well," "Household Remedies," and those you mention in your letter, you will find useful advice that would prove in practice very serviceable, perhaps curative, although your malady appears to be chronic.

UNNATURAL APPETITE.—C. E.—Your excessive craving of food is an indication of stomach troubles, or some disorder of the intestines, by which your system does not get the nutritive benefit of the food you take. We might say that you are "dyspeptic," but that is a very general term and far from satisfactory. Only a careful examination of the case could determine the source of the trouble, and enable a physician to give the proper treatment. We should not attempt, with the meagre particulars contained in your letter, to say what the specific cause is. The liver, or the kidneys, or the stomach, or the intestines, may be particularly out of function, or the disposition to excessive eating may be due to habit fostered by a large and unregulated organ of Alimentiveness.

HIVES.—G. D.—This eruption, commonly called nettle rash, is a symptom of vascular derangement arising mainly from trouble in the digestive organs. Improper food is the chief cause, and some claim that certain kinds of food, especially shell-fish and certain vegetables, like cucumbers and mushrooms, are likely to produce it. Strawberries are condemned also, sometimes, as an exciting cause, but in the case of vegetables and fruits there must be an abnormal condition in the person to have such an effect produced by them. The eruption appears in the form of large, slightly elevated patches, flattened, hard to the touch and of a pale red color. On a reddened skin they may sometimes appear whitish. There is a slight degree of fever, and the eruptions itch and tingle severely. They generally appear in the morning and vanish in the course of a few hours; may come and go two or three

times the same day and keep up this performance for several days, when they disappear altogether. People who have naturally a full, strong circulation are more likely to be affected by the rash than those whose blood moves with less force. A free, unexciting, cool diet should be adopted, and everything that is known to disturb the stomach should be avoided. Fresh, ripe fruit, lemonade, natural spring-water of the aperient class afford relief.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

Mental Impression And Disease.—There are illustrations, within almost everybody's experience, of persons who have made themselves sick by believing that they looked pale, or that they had been exposed to smallpox or some other contagious disease. Now the especial point I would make, is this: The reading of such pieces as we find in the newspapers, headed: "Is this what ails you?" &c., followed by a long list of symptoms, aches, pains and "all-gone" feelings, sets every sensitive person to thinking of himself, and the impression may grow until fear actually produces the symptoms described. I want to cry out against the publication and reading of such things, for they are sure to create business for some one, if not for the nostrum advertiser. Though some of us may proclaim the absurdity of being affected by such things, yet no one will claim that they feel healthier or invigorated by such reading.

All will, I think, concur with me when I say that in time of a plague more than half who die do so from fright. Scientists seem to be straining to discover the cause of disease outside of the body; they will never find it. The cause and cure are inside. "As a man thinketh, so is he." If you tell a man that terrible maladies are transmitted by money, and that it is very easy to become infected, you increase his liability to infection a hundred fold. I believe we should avoid thinking or telling anyone that they are looking poorly as much as possible. The very thought of a strong mind is more potent than a good dose of poison. We can resist disease in the degree to which we are conscious of our

impregnability against it. And, I believe, M. Pasteur's success in treating hydrophobia is due wholly to the mental influence which accompanies it. The same is true of all the good which ever came of vaccination. It may do for us as scientists and anthropologists to view different kinds of bacteria, but we should remember that our health can not be affected by them only as we make ourselves negative to them, through fear. I believe this subject to be one of the greatest importance, and hope others will contribute their thoughts upon it. C. L. HASKELL.

Good Bread Without Yeast.—

EDITOR OF THE PHRENOLOGICAL JOURNAL.—Sir: In answer to my inquiry my wife hands me the following. Having tried all other ways of making Graham bread she adopted this as the best. I have used no other bread for seven or eight years, and would not care to do any mental work without it. In fact, believing in the Tusculan definition, *vivere est cogitare*, I might say I could not live without it:

"Take two coffee-cupfulls of good whole wheat flour (the ordinary Graham flour sold at grocery store should never be used, as it is but little better than refuse). Use a deep earthen bowl. Stir into the flour a pint of milk and beat with a wooden spoon. Beat from the bottom upward with quick, sharp strokes, so as to incorporate as much air as possible, and until bubbles appear. Beat two fresh eggs to a froth, and add. Beat the mixture again well. An iron gem pan having a dozen cups should be first placed upon a stove, so that by the time the mixture is ready the pan will be *hissing hot*. Then after greasing each cup thoroughly with good olive oil, pour in the mixture and put at once into a quick, hot oven. In about twenty minutes you will have a dozen little golden-brown loaves, puffed high up in the middle and running over at the sides like well-made cake. Those who can afford pure cream instead of milk, will have a bread as rich and light as cake. In either case the result is a rich golden loaf, the most delicious bread ever eaten, and in comparison with which the ordinary white bread is tasteless and insipid. It keeps sweet a long time, and can be freshened in a few minutes in a hot oven so as to taste "as good as new."

New York.

J. F. MORSE.

PERSONAL.

RICHARD M. HOE, head of the well-known manufacturing firm of R. Hoe & Co., died, June 14th, at Florence, Italy. His death, which was wholly unexpected, has been followed by the publication of long accounts of his career as an inventor; for to Col. Hoe journalism is largely indebted for the improvements in the mechanism of the printing press which have made possible the printing of the enormous editions now issued by leading dailies in this country and Europe. Col. Hoe was a man of intelligence, strong character and kindly instincts.

CHARLES DICKENS, the late novelist's son, is trying to follow in his father's steps. He made his first appearance as a reader not long since, giving selections from the story of Paul Dombey and Mr. Bob Sawyer's Party. The experiment, which does not seem to have been entirely successful, was made in the Athenæum, at Camden Town. The reader imitates his father as closely as possible.

DANIEL GEERIN, probably the oldest person in the State of Wisconsin, died in June, at his home in Shields, eight miles west of Watertown. He was in his 109th year; was born in Ireland. He had resided in Wisconsin over thirty-five years.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

Despair makes victims sometimes victors.
—*Bulwer Lytton*.

Self-government is a natural right, and the ballot is the best known method through which to exercise that right.

Of governments, that of the mob is most sanguinary, that of soldiers the most expensive.

A defect will more quickly take the eye than a merit. The spots on the moon usually arrest our attention more than his clear brilliance.—*Hindu (Drishtanta Sataka)*.

Nothing doth so fool a man as extreme passion. This doth make them fools which otherwise are not, and show them to be fools that are so.

True humanity consists not in squeamish ear; it consists not in starting or shrinking at tales of misery, but in disposition of heart to relieve it.

There is a great deal of cheap counsel about being contented with one's lot. Out upon that contentment that is satisfied with the imperfect! It is a sign of weakness, not of wisdom.—*H. S. D.*

It is the lonely load
That crushes out the life and light of heaven;
But, born with him, the soul restored, forgiven,
Sings out through all the days
Her joy, and God's high praise.
—*Farningham*.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

"My usual luck!" exclaimed Biggs, "I bought an accident policy, and here it is almost run out, and I haven't so much as stubbed my toe."

"Are you in favor of enlarging the curriculum?" asked a school-director of a farmer. "Enlarge nothing," replied the husbandman, "the building's big enough; what we want is to teach the scholars more things."

"Two little tots were standing at the gate a few nights ago. Said one, gazing upward: 'What do you s'pose the stars are?'" "Well," said the other, "I dess they's the sun's chickies. Don't you know papa says the sun sets?"

"Doesn't some one here know the meaning of the word 'equation'?" asked a young miss at a party. And there was just one young man who said that while he didn't know exactly, he thought it might be a contraction for "equal to the occasion," and then all kissed and went home.

Gentleman.—You look tired and worn out, Uncle Rastus.

Uncle Rastus.—Yes, sah, I is. I don't git no sleep.

Gentleman.—No sleep?

Uncle Rastus.—No, sah. Dis darky can't git no sleep in de watermillion season.

Stranger.—"Excuse me, but I am not right in taking you for a professional man?"

Fellow-passenger.—"Yes, sir." Stranger.—"Thanks. It's not often that I make a mistake in judging my fellow-men. Your work is head work altogether, of course?" Fellow-passenger.—"O, yes, sir—entirely so." Stranger.—"Er-lawyer?" Fellow-passenger.—"No, sir, barber."



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

DISEASES OF THE DIGESTIVE ORGANS IN INFANCY AND CHILDHOOD, with Chapters on the Investigation of Disease, and on the General Management of Children. By Louis Starr, M. D., Chemical Professor of Diseases of Children, in the Hospital of the University of Pennsylvania, etc. 8vo. pp. 385. Philadelphia: P. Blakiston, Son & Co.

We are pleased to see this new work, as there is a want in this country of practical treatises on the diseases of the stomach and intestines. Minton, Steiner, Sansom, Churchill and others have given us volumes of a comprehensive character, relating to the treatment of children's diseases in general, but that technical, differentiated management of particular cases which falls to the lot of a physician with a large and miscellaneous practise is left mainly to what discretion and skill experience may have given. The directions for examination are generally clear, and the physiognomical indications of special organic derangement show much observation and thought in a line of the highest importance for accurate diagnosis. Dr. Starr evidently appreciates the value of proper hygiene in the management of all cases, since he is quite full in his advice with regard to food, cleanliness, comfortable clothing, good air, rest, etc. He, in fact, is more emphatic on these points than with regard to the drugs that appear to be indicated by a given condition. The book is intended for students and practitioners of medicine, but its clear style adapts it to the study of intelligent parents, who would know how to manage young children in a natural and simple manner, and avoid the thousand dangerous mistakes of ignorance and blindness.

PUBLICATIONS RECEIVED.

OUTING, for July, is of respectable proportion and rather comprehensive in its survey of the field of American recreation. Yachting, of course, occupies a large space and is illustrated with views of favorite boats. Mr. Stevens who is on his way toward China, riding a bicycle, continues his contributions from the scenes of his experiences. Ranch life, Rocky Mountain adventures, fishing, etc., are among the topics.

HARPER'S, for July, has for its frontispiece a portrait of Nathaniel Hawthorne. The historical sketch of the New York Produce Exchange is interesting, and illustrations unusually numerous. The "Gunpowder for Bunker Hill," "Salmon Fishing," "The Railway Problem," "Singing Wings,"—a bird story, besides two or three illustrated notables, make up an attractive number.

The COSMOPOLITAN, a recent candidate for notice among the monthlies, is well printed and promising. Publication office is at Rochester, N. Y.

AMERICAN JOURNAL OF INSANITY, for July, will invite attention on the part of those interested in the special topics belonging to the publication. "Disturbances of the Intellect in Hemiplegia," "Education in Relation to Life," "Memorizing as an Exercise for the Insane," "The case of William B.," a very interesting example of moral imbecility, are the leading features.

OGILVIE'S POPULAR READING, No. 31, with its customary batch of stories. Price 30 cents.

PROHIBITION DOES PROHIBIT, Part Third, contains twenty-four pages of testimonials from Maine, Iowa, Kansas and Georgia, on this much debated question. The sources of these testimonials are of the highest social and professional character. Price five cents. National Temperance Society, N. Y.

JUVENILE TEMPERANCE MANUAL FOR TEACHERS, by Julia Coleman, is an eminently useful little book, it can be employed as a lesson-book in schools, or as a hand-book for reference by those who wish to disseminate truth on the alcohol question. A few chapters consider tobacco, a very proper annex for such a book.

The POPULAR SCIENCE MONTHLY, for July, covers some thirteen or more topics; among them an experiment in silk-culture, written by a woman who knows practically the great fraud attempted by some well-meaning persons, and by others not so well-meaning, to develop an industrial interest with respect to silk culture. The "Influence of Exercise upon Life," "Transportation and the Federal Government," "Bohemian Glass," "Care of the Brain," "Development of Minerals," and the Sketch of "Gerard Mercator," are worthy of mention.

CURRENT EXCHANGES.

The English Pulpit of To-day, monthly. A. E. Rose, Westfield N. Y.

Virginia Medical Monthly, M. B. Edwards, M. D., Richmond, Va.

Vick's Illustrated Monthly. Horticultural. Rochester, N. Y.

Little Men and Little Women. Illustrated Monthly. D. Lothrop & Co., Boston.

The Woman's Magazine, July. Esther T. Hough, editor, Brattleboro, Vt.

The Medical Current, bi-weekly. Henry Sterry, editor, Chicago.

The Brooklyn Magazine, July. A growing publication, New York.

The Folio, musical and literary monthly. Earl Marble, editor, Boston.

The Illustrated News, weekly. O. O. Hall editor, Cincinnati, O.

Mind in Nature, monthly. Cosmic Publishing Co., Chicago.

The Cincinnati Medical News. Dr. J. A. Sharker, Cincinnati, O.

The Eclectic Magazine of Foreign Literature, July. E. R. Pelton, New York.

The Phrenological Magazine. London. L. N. Fowler.

Hall's Journal of Health. New York.

The St. Louis Photographer. Mrs. Fitzgibbin Clark, St. Louis, Mo.

Horticultural Art Journal, a new, and handsomely decorated monthly. Mensing & Stechler, Rochester, N. Y.

THE INSTITUTE OF PHRENOLOGY—COURSE OF 1886.

THE truth of the activity of phrenological principles in the thought of the day needs no special demonstration. It is evident in every sphere that has a relation to the development and exercise of body and mind. It is apparent in the special observations that are made in the structure and functions of brain by so many. It is apparent in the daily inquiries of cultured people with regard to the nature of the Phrenological Institute, and the increasing number from year to year of those who would be glad to avail themselves of the lectures and demonstrations of the autumn course of study pursued in accordance with the plan of the Institute, to facilitate the dissemination of human science among the American people. The seeds of truth which the Institute has been sowing for nearly eighteen years are springing into leaf, flower, and fruit—and giving assurance of the high utility of the work. There lies before us a note lately received from a young minister,

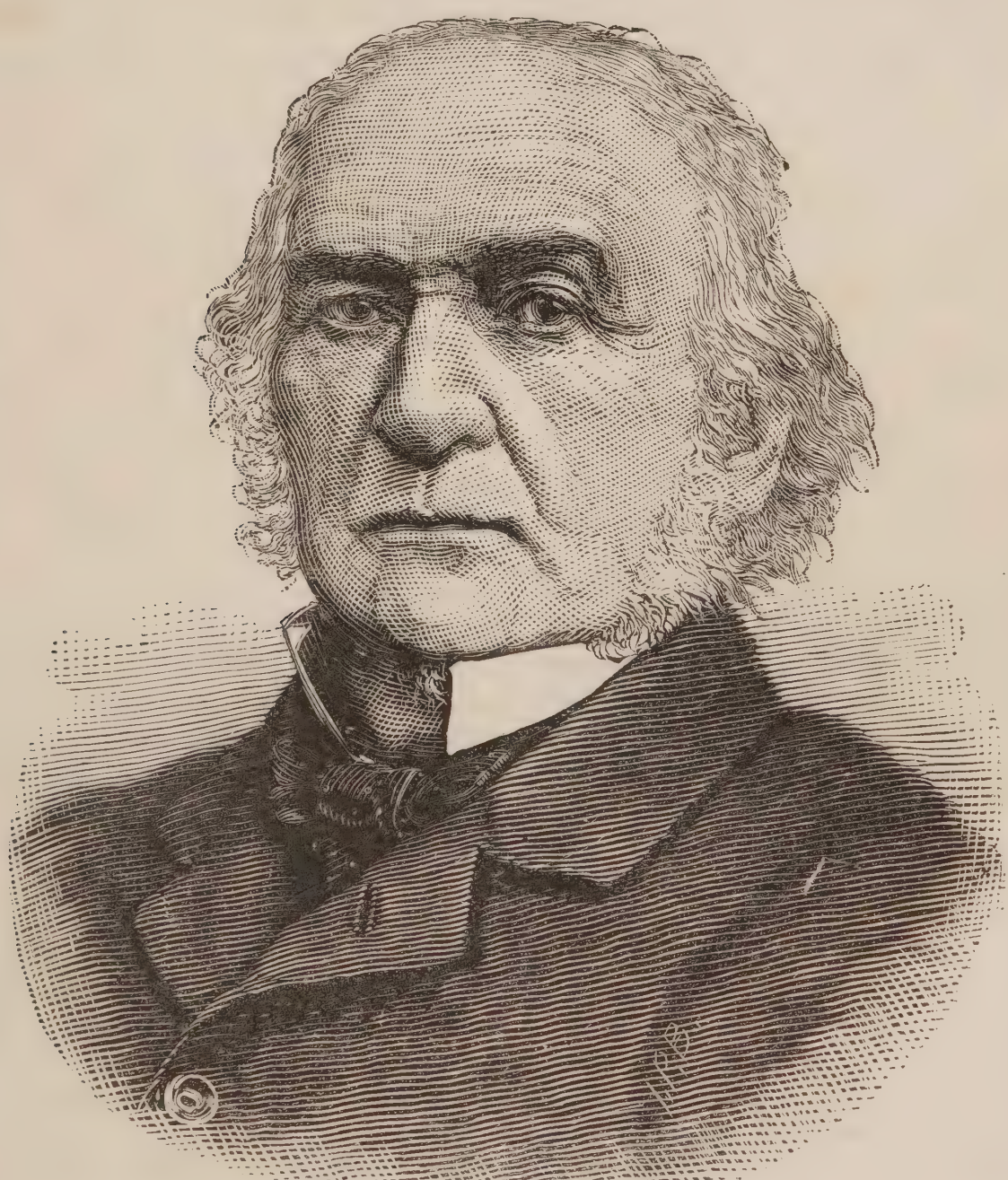
one who attended a course at the Institute, and who has an important charge in the West. This is what he says: "I have come out boldly as a phrenologist, and preach it from the pulpit." There are many ministers who do the same, and are enthusiastic in their acknowledgment of personal gain.

It is thus seen that while those who have decided to take up Phrenology as a calling will receive from its curriculum the essential instruction and practice needed for their work, men and women with other purposes, and coming from a variety of spheres, especially that of teaching and work that has its social and missionary sides, will find themselves furnished with new helps and new motives, so that success can be more easily achieved. We ask all who think of looking into this subject to read the last circular of the Institute.

The next session will commence on the first Tuesday in September, and continue eight weeks. Full information with reference to the plan of study and the lectures of the course is supplied in the circular, which may be obtained by addressing the Secretary, or the Fowler & Wells Co., 753 Broadway, New York.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 83. 1886.

NUMBER 3.] *September, 1886.* [WHOLE NO. 573.



ENGLISH PARLIAMENTARY LEADERS.

GLADSTONE, MARQUIS OF HARTINGTON, CHAMBERLAIN, SIR MICHAEL HICKS-BEACH.

THE great political crisis in England much above the "Eastern question" is the vital topic of the time, rising in its interest to all English-speaking

peoples. Although the encroachments of Russia keep the "great powers" in a state of constant anxiety, and England has even more at stake in the East than the others, there are elements of disorder fermenting in the very heart of the British nation that render foreign complications secondary. With the introduction of the measure for Home Rule in Ireland, affairs reached a climax. Parliament was dissolved, and the Premier's appeal to the country resulted in the defeat of his ministry. While Scotland, Wales, and Ireland declared for Home Rule, the great preponderating vote of England, where Conservatives and disaffected Liberals could wield their strongest influence, decided the contest against Mr. Gladstone, and made his withdrawal from power a necessity.

The particulars of the recent Parliamentary struggle we need not recite; they are well known to our readers; but some special mention of the leading actors in that struggle may not be unwelcome at this time.

Of Mr. Gladstone we naturally speak first. Confessedly one of the two or three most distinguished statesmen of the age, and in some respects the greatest man of the time, it is not any easy matter for the phrenologist to express an opinion of him that will be accounted by everybody as strictly impartial. However, from a thoughtful sketch prepared some time ago by Professor L. N. Fowler, whose residence in England has given him opportunities for studying the great Liberal, we derive the following notes:

Mr. Gladstone's head is large, giving him his predominating power; yet he has a strong frame, a vigorous muscle, and a tenacious constitution. His strong osseous system has a great regulating and balancing influence, while his muscular system aids to give strength and stamina to his character. He has not a superabundance of arterial and digestive force, so that he does not show an excess of impulsiveness or animal feeling; hence he does not often go beyond

his strength. He thinks, talks, walks, and works without much friction. He has more balance of power than most men. He can take average views of subjects, and does not delight in extremes of sensationalism. He has a great amount of force and executive ability, and has pluck to endure hardships and even severe labour. His frame is as well adapted to physical exercise as his brain is to the manifestation of thought and feeling, and he must have a distinct pleasure in work. His head is prominent in the crown and above the ears, giving him an acute sense of character, desire for position, influence, and appreciation, joined to a high degree of perseverance and determination.

His frontal lobe is long, and very fully developed, being particularly large in the perceptive faculties, which give him great range of observation, definite and correct perception of things, their qualities, conditions, and uses; the order and arrangement of things and ideas, a ready power to estimate numbers, recall places, to acquaint himself with facts, and the results of experiment. His large Language, joined to his great variety of knowledge, enables him to express himself in a free, and easy, and copious manner. His very large Order, connected with his great discipline of mind, enables him to arrange all his thoughts before utterance; while his large Constructiveness and Ideality aid to give scope to his mental operations, finish to his style of speaking, and ingenuity in the constructing of his sentences. His very large Comparison and Intuition give him great insight, penetration, and aptitude in getting at the essence of truth, together with great power of illustration, thus enabling him to make the most of his knowledge and experience.

The strength of Mr. Gladstone's character, however, is in his moral brain. His portraits indicate that all the organs are full or large in development. Probably Hope is the smallest of the group. He is not given to extravagant anticipation,

and in making his plans he makes considerable allowance for failure. His hope is greater for the far than the near future. Conscientiousness, Veneration, and Benevolence are all controlling faculties, and must have an abiding influence on character and motive. He could never allow himself to be governed by expediency without doing violence to his nature. There is something of the Hebrew prophet in his moral composition. Naturally slow to adopt innovations, and accept new ideas, he is conservative rather than revolutionary; yet once possessed of what appears to be a sense of duty, it is as if he were given a command from above to "go and do this thing." His large Cautiousness, together with his Conscientiousness, makes him hesitate in taking a new position or a fresh responsibility; but having taken the step he withholds not his hand from the plow. Duty to God, duty to man, and duty to himself, as regards his allegiance to truth, must have always constituted the ultimate court of appeal in his character, and the decision therein come to, whether arrived at soon or late, compels his obedience, and having accepted a position, few men would more resolutely and steadfastly manifest the courage of their opinions. Mr. Gladstone might have been a more "popular" man, in the ordinary sense of the term, if he had more affability, suavity, and bendingness of mind (if I may coin a phrase), but it is not easy for him to be "all things to all men." Life to him is "real" and very "earnest," and though his mental constitution is such that he could have excelled in many spheres, he would not have been in his element save in one that brought him into direct contact with the actual problems of life.

William Ewart Gladstone is the son of a Scotsman who settled in Liverpool about one hundred years ago, and entered commercial life. In the course of time he became one of the most prominent merchants of the city, and possessed of a large property. William

Ewart, the second son, was born on the 29th of December, 1807. His early education was obtained at Eton. From thence he went to Oxford, where he pursued a course in Christ Church College, distinguishing himself for classical scholarship especially. After being graduated in 1831 he spent some time in Continental travel.

His father's wealth and influence brought him into notice early, while his personal qualities and intelligence secured the favor bestowed by the community. A natural leaning to politics thus found its opportunities, and he was but twenty-three years old when elected to Parliament to represent the borough of Newark. Then he was by inheritance and education a Tory, and an earnest advocate of Tory principles. In the early part of his public career he was thus described:

"He is one of the most rising young men on the Tory side of the house. His appearance and manners are in his favor; he is a fine-looking man. His countenance is mild and pleasant, and highly intellectual; there is not a dandy in the house but envies his jet-black hair. His complexion shows that he possesses an abundant stock of health."

He rapidly rose in influence and reputation, serving as a confidential supporter of Sir Robert Peel when that minister was engaged in his measure for introducing reforms that proved of the greatest value to English commerce. In 1845 began the change in his political opinions which estranged him from his former allies. "We see him," says a writer, "as member for Oxford University, fighting now on this side and now on that, often almost alone, but always on the side of justice and liberty. Finally, we see him rejected by the University—his opinions had become too pronounced for so conservative a body, and taking the leadership of the Liberal party; a leadership which has now lasted for nineteen years, with a brief interval; a leadership so complete, that Mr. Gladstone has

almost been the Liberal party. He has served six times as Chancellor of the Exchequer, for more than ten years as Prime Minister; he has met with a few failures, such as fall to the lot of every statesman, but has gained many triumphs, and his opponents allow that he has done good service to his country, and earned the first place in the citizen's esteem."

The chief intellectual recreation of his working life has been the study of the Homeric poems. There have been more learned scholars, but none have written on the subject better and more gracefully, and his "Studies on Homer" and "Ju-



MARQUIS OF HARTINGTON.

ventus Mundi" are wonderful as the work of a busy statesman. Gladstone has also contributed a host of essays on historical, ecclesiastical and political subjects to the press. One entitled "Kin beyond Sea" speaks of America, a country for which Gladstone felt and expressed the warmest regard. "The England and America of to-day," says he, "are probably the two strongest nations of the world. But there can hardly be a doubt, as between the England and America of the future,

that the daughter, at no very distant time, will be unquestionably stronger than the mother."

During our late war Mr. Gladstone indicated a leaning toward the success of the Southern cause, an attitude that made him many enemies among those of our people who had previously admired and esteemed him. We believe that he then felt toward the discontented section of the American people a sentiment not unlike that which he shows toward Ireland; although he better understands the Irish question now than he understood the question of secession twenty-four years ago, his naturally strong sense of justice would lead him to express sympathy for a people struggling against real or apparent political wrongs.

In the beautiful valley of the Dee, close to the hills of Wales, lies Hawarden Castle, Gladstone's country home. Here, whenever he could escape from the cares of office, his simple and abstemious life has been passed. At eight o'clock he would walk down to the village church, of which his eldest son is rector. The morning he would spend in study or writing; the afternoon in walking, conversing with his guests, or at his favorite pastime—felling trees. Many stories are told of his kindness to his rustic neighbors; how, for instance, he put his shoulder to the wheel to help a carter up the hill, whereupon the grateful peasant offered him a glass of beer. On Sunday he has often read the lessons in his son's church; but this began to attract such a crowd of sight-seers that he discontinued the practice. He has often been seen in the humblest houses, reading from the Scriptures to the sick or dying, in his remarkably soft, melodious voice.

Of LORD SALISBURY, the acknowledged leader of the Conservatives and to whom the place of Premier naturally followed on the retirement of the Liberals from the functions of Government, a sketch was given in the September number of the PHRENOLOGICAL last year.

Although the Tory leader Lord Salisbury is not an extremist in party view, and as a man is highly esteemed by the English people.

THE MARQUIS OF HARTINGTON.

This portrait impresses the observer favorably; that long, serious, kindly face would lead a stranger to trust him. The features are massive, and yet not coarse. We judge that the forehead and the eyes are derived from the mother, and that his type of talent, his knowledge of character, his sympathy and reverence are from the mother's side.

The head rising high, as it does, from the opening of the ears to the region of the crown, indicates determination and strong moral purpose, and the middle face harmonizes with that part of the head, and we judge it is derived from the father.

His head does not appear to be very wide, consequently his character will not be known so much for force as for steadfastness, and his selfishness will be personal rather than pecuniary. He is inclined to stand on his dignity, to manifest righteousness and justice, to respect religious institutions and to be conservative in the tone and spirit of his mind and life. What he might be induced to do in the direction of liberalism would be the result of his Benevolence and Conscientiousness, rather than of an essentially democratic spirit. We regard his moral, aspiring and sympathetic principles as being superior to those of pushing force or mere intellect, and think that he ought to be known for moral discriminations rather than sharp intellectual sagacity.

The Right Hon. SPENCER C. CAVENDISH, otherwise Marquis of Hartington, is the eldest surviving son of William, the seventh Duke of Devonshire, and was born July 23, 1833. He was educated at Trinity College, Cambridge, taking the degree B. S. in 1854. In 1856 he was appointed on Lord Granville's Special Mission to Russia, and the following

year elected to the House of Commons, as a representative of the Liberal interest for North Lancashire. In March, 1863, he was appointed a Lord of the Admiralty, and in April of the same year Under Secretary of War. On the reconstruction of Lord Russell's second administration in February, 1866, the Marquis of Hartington became Secretary of War, but held the portfolio but a few months, as the ministry of Russell was defeated in the July following. At the general election of December, 1868, the Marquis was elected to Parliament for Radnor, having lost his seat for North Lancashire, and after having received from Mr. Gladstone the appointment of Postmaster-General. That office he held until January, 1871, when he succeeded Mr. Fortescue as Chief Secretary for Ireland.

He shared the fortunes of the Liberal Ministry when it withdrew from power in 1874 and was succeeded by the Administration of Mr. D'Israeli. When in 1875 Mr. Gladstone announced his intention to withdraw from the leadership of the Liberals the Marquis of Hartington was unanimously chosen by the representatives of the party to head its interests in the House of Commons. He received the freedom of the City of Glasgow, November 5, 1877, and on January 31, 1879, was installed Lord Rector of the University of Edinburgh.

On the resignation of the Conservative Government in 1880, the Marquis of Hartington was requested by the Queen to undertake the administration of national affairs, but he declined, as did also Earl Granville, when the task of forming a new Government devolved upon Mr. Gladstone, who gave the Marquis a seat in his ministry as Secretary of State for War. This he occupied nearly two years, when in December, 1882, he was transferred to the war office in succession to Mr. Childers, who had been made Chancellor of the Exchequer.

In the late brief occupation of authority by the Liberals he held an official position until the attitude of his chief

with respect to the Home Rule measure led him to withdraw from it and announce himself in opposition to the establishment of an Irish Parliament, at least after the model defined by Mr. Gladstone.

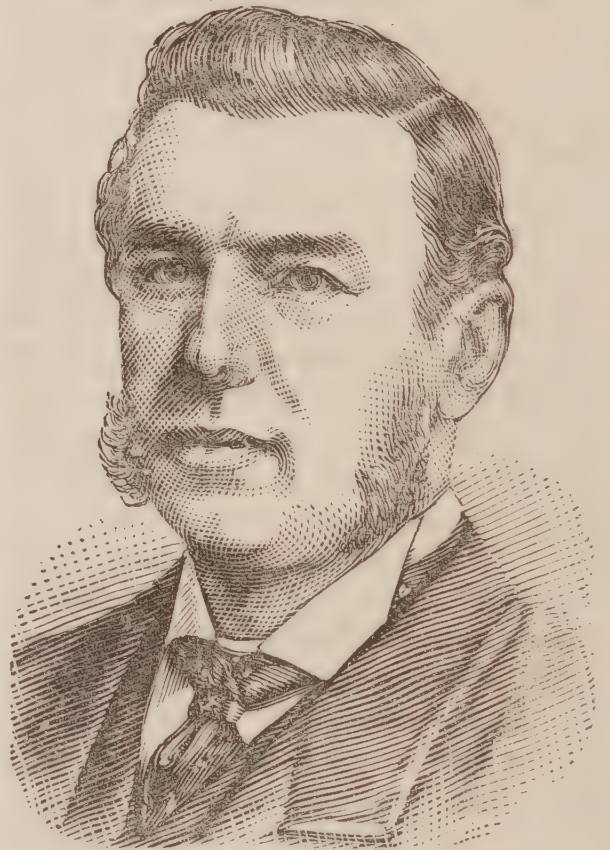
JOSEPH CHAMBERLAIN.

Mr. Chamberlain has been the most prominent feature in the contest. The most radical of the English Radicals, or as that term might be translated, an extreme Liberal, he early disagreed with Mr. Gladstone on certain features of the Home Rule measure, and set himself up in opposition to the Premier, and having great influence with the English masses, his action contributed more than any other thing to the Liberal defeat at the hustings. He is thus described by a London contributor to the *Independent*:

"Mr. Chamberlain is a thin, spare man with a hard face, keen eyes, with rather dark hair, now beginning to be slightly streaked with gray, a lofty forehead and an almost smooth face. It is the head and face of a man of mental power, of versatility, of determination; an interesting face, though with a certain perky upstart expression. He is always very fashionably dressed, with oiled and pomaded hair, a single eye-class, an orchid in his coat, and faultless clothes. He lives plainly and even sparingly, caring nothing for the pleasures of the table, but an ardent devotee of the cigarette. He has some friends who are strongly attached to him, and who believe in him thoroughly; but he is personally much disliked by a large number, who think him conceited, overbearing and revengeful. He has very decided literary tastes, possesses a good library, is fond of pictures, and is devoted to flowers. He has traveled all over Europe, but, I believe, has never been in America. As a speaker, Mr. Chamberlain has a high and deserved reputation. I have heard him many times and I never heard a clearer, more forcible speaker. He is not an orator; far from it. He lacks passion, warmth, glow, intensity of feeling. He has no

great, deep beliefs, without which oratory is mere mechanism. He is all head and very little heart. He is deliberate in speech; every word is clearly enunciated; and, although his voice is not deep or resonant, he can be heard well in very large public halls. His ideas are, on the whole, rather commonplace, and his language contains all the ordinary phrases of the debating society. But it goes down well, is pleasing and attractive; and I, for one, admit that I could listen to Joseph Chamberlain for hours."

Joseph Chamberlain was born in London, in July, 1836, the scion of a Unitarian family, his father being, we believe, in the shoe business. He received a good



JOSEPH CHAMBERLAIN.

education at University College School, and afterward went into his father's trade. In the course of time he gave up boots and shoes and went to Birmingham to manufacture wood-screws. In due time, his firm took a high position in the screw trade. It was they who first gave a point to the screw, and made certain other improvements of value. Other firms could not compete with them, and these firms were bought out or

crushed, until Messrs. Chamberlain & Nettlefold had obtained a gigantic monopoly of seven manufactures in England. Mr. Chamberlain himself admitted, publicly, that an American firm paid his people \$25,000 a year, on condition that the Birmingham firm kept their screws out of the American market. Thus, screw-making led to fame and fortune; and, in 1876, Joseph Chamberlain retired from the business a very rich man, and built a splendid mansion in the suburbs of Birmingham.

Mr. Chamberlain's formal entrance into public life was in 1869, when the National Education League was founded, of which body he became the leading spirit. The League was founded to maintain the cause of free and unsectarian education. It did much to enlighten the country, but was dissolved in 1876.

In 1876 he was elected to Parliament as one of the representatives for Birmingham, and from that time on he gained greatly in political power. His authority with the Radicals gave victory to the Liberal party in 1880, and Mr. Gladstone was constrained to give him a position in his Cabinet, and appointed him President of the Local Government Board.

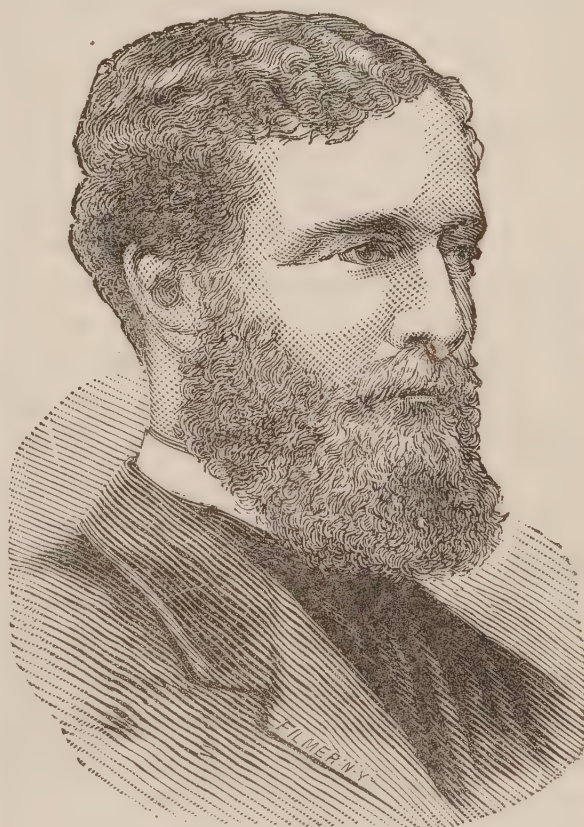
The conduct of Mr. Chamberlain during the past year or two intimates, we think, a strong ambition for authority in the Government, a looking toward the place even of Premier. Although he is said to be very much disliked by the nobility and by a large proportion of the Liberals, yet it is the opinion of some observers that he might be found on the side of the Tories repudiating principles that until now he has been foremost to advocate, and all for the sake of maintaining a hold upon public affairs and making, if possible, some advancement toward a higher place.

SIR MICHAEL HICKS-BEACH.

This appears to be a broad head, with a plenty of push, and what the English call "pluck." His face is the face of a

soldier. Those broad cheek-bones mean good breathing power, and the strength of the shoulders a courageous earnestness in the accomplishment of whatever he undertakes to do. We see force, definiteness and love of domination in this organization, rather than mellowness and amiability.

His large perceptive give him quickness of instinct; his reasoning power is sufficient to comprehend combinations of facts; his Constructiveness gives him the ability to understand complications of every sort, financial among others. He would have made a very fine engin-



SIR MICHAEL HICKS-BEACH.

eer and a capital builder. If he has any occasion to construct buildings, the architect finds out that he has opinions of his own, and he may suggest that which will be beneficial, which the architect in following routine might not adopt.

He has large Acquisitiveness, could go into the strifes and struggles of financial life and cut his way and stand his ground. There appears to be severity in this organization as well as positiveness, and we infer that he has not the tendency to

soothe and mollify, and persuade and thaw people into conformity to his wishes. There is a sort of earnest forcefulness about him that decides what he wants, and tries to shape everything he touches and everybody that comes in contact with him, more or less, to his own views.

He is ambitious, proud spirited, brave, positive, courageous ; has policy but does not use it as a screen for himself or his cause, but rather to effect the purposes which seem to be desirable. If the picture were presented to us without a name, we should say he would make a good president of an American railroad, or manager of a line of steamers, or would run a large mill, or factory, inventing many things himself, and having a sharp supervision over the progress of the inventive part of his business.

He is capable of scientific knowledge, especially engineering science, and in such a position he would shine as few men can who have occasion to devote themselves to that field of effort. It would be natural to him to gain a great deal of knowledge about people, and to know their wants. If he were an American he would be conspicuous for working out public improvements and encouraging advancement. He is endowed with the material which makes the self-made man ; such an organization will hew its way anywhere and doesn't need much help.

Sir Michael was born in 1837, and was the eldest son of his father, who, dying in 1864, left to him the knightly title of a

rather old family. It is said that a certain Ellice Hicks was created a "Knight-Banneret" by Edward III., for bravery while serving in the French war under the Black Prince. But Sir Michael's direct family line is descended from Sir John Hicks of Gloucester who was a merchant in London, and the father of the famous Sir Baptist Hicks, who was created Viscount Campden in 1628. The additional surname of Beach was taken by the eighth Baronet.

He was educated at Eton and Oxford, where he was graduated with the degree of B. A. In July, 1854, he was elected M. P., for East Gloucestershire, as a Conservative. He was appointed Parliamentary Secretary to the Poor Law Board from March to August in 1868, and Under Secretary for the Home Department from August to December of the same year ; and was appointed Chief Secretary for Ireland in February, 1874, a post which he continued to hold till 1878, when he was chosen to be the successor of Lord Carnarvon, as Secretary of State for the Colonies, which position he held until 1880.

Later, in the short-lived ministry of Lord Salisbury last year, he was given the important place of Chancellor of the Exchequer. He is a gentleman whose fine appearance and dignified bearing are impressive. Without being a great orator, he possesses qualities, especially of criticism and invective, that render him one of the leaders in the Conservative ranks.

ORTHODOX CHRISTIANITY AND THE RELIGION OF JESUS.

A GREAT difference is perceived by many minds, particularly at the present time, between the religion of Jesus the Christ and institutional Christianity, under whatever form or organization it now exists, whether Catholic or Protestant. A superficial consideration is all that is requisite to show that the teachings of Jesus, both spiritual and

ethical, are not by any means identical with the doctrines or dogmas of the Christian sects. While Jesus, by the concrete simplicity of his teachings, eliminated from them everything like intellectualism, addressing the spiritual nature in terms that even a child could comprehend, the dogmatic theologians have obscured the spiritual in a cloud of

intellectual subtleties and abstractions, and thus created what the divine Nazarene was especially careful to avoid, sectarian divisions and controversies, so destructive of all true spirituality.

It is this characteristic of the religion of Jesus that makes it universal—an everlasting and immutable gospel for the whole human race, grander in its suggestiveness and profounder in its significance in proportion to the spiritual advancement of the mind that contemplates it; while, on the contrary, the dogmatic systems that have been set up to fit it to human ecclesiastical institutions not only puzzle and perplex the understanding, but tend to eclipse the spiritual light that ever shines within the inner nature of man, produce endless inharmony, and render the beautiful form of essential Christianity hideous and repulsive.

It must be apparent to all who contemplate the religious characteristics of this time that this discriminative truth—always obvious to highly spiritual minds—is becoming more and more generally appreciated and emphasized. The baneful influence of creedism in retarding the progress of true spiritual religion is not only recognized, but strongly denounced by many of the best clerical representatives of the Christian sects, and the injurious effects of narrow sectarianism, as opposed by Christ's universal Christianity, are deeply deplored. It is clearly seen that the differences of opinion as to church organization and government, ceremonial, baptism, and all the other points upon which sectarian divergences are based, are of but little intrinsic importance,—indeed, of scarcely any at all, in comparison with the great truths presented and enforced by the divine Teacher; that they have, in fact, proved a stumbling-block to the influence of the church, that should be militant in a divine and truly Christian sense.

When Jesus said to his disciples, "A new commandment give I unto you, that ye love another," he proclaimed the

essential element of his religion; for that religion may be summarized in the single word *love*—love to God as the common Father, and, resulting from this, love toward all mankind as being the children of the same divine Parent. Thus, essential Christianity is, undeniably, only the divine fatherhood and human brotherhood realized in the heart and made practical in daily life. Before this, all the intellectual subtleties of theology, of Scriptural interpretation, and of ecclesiastical policy and casuistry dwindle into utter insignificance. This is the religion that Jesus illustrated and personified in his life; and it is this that makes Prof. Swing say in his recent article on "The Ideal Church:" "The most powerful Christianity for the near future will be one that shall make the person of Christ the center and circumference of its truth and emotions." This is true, provided we do not make the great, but very general, mistake of substituting the personification of the religion for the religion itself. The person of Jesus, it is true, is often presented as a conspicuous figure in his teachings; yet it is never confounded with those eternal principles of spirituality and ethics which would have been, and would be, just as true though his earthly personality had never appeared on the earth—though its existence were entirely mythical. The historical existence of Jesus is not at all necessary to his religion, which was in the world before he taught it. This is a fact admitted by St. Augustine, who said: "The Christian religion was known by the ancients, nor was wanting at any time—from the beginning of the human race until the time when Christ came in the flesh, from whom *the true religion*, which had previously existed, began to be called *Christian*; and this in our day is called the Christian religion, not as having been wanting in former times, but as having in latter times received its name."

If this is so, the personality of Jesus can not be the Christian religion, but only an exemplification of it, potent as

such, of course, since the concrete is always more powerful than the abstract. Even Strauss could say: "Jesus remains the highest model of religion within the reach of our thought;" and John Stuart Mill admitted that, "it would not be easy even for an unbeliever to find a better translation of the rule of virtue from the abstract into the concrete than to endeavor so to live that Christ would approve our life."

But this relation of impersonation, or exemplification, is very different from the worship of Christ as a personality, or as the "second person" of a triune deity. We do not find this in the accepted record of his teachings—it was an invention of his professional followers; and, certainly, a great departure from the system which he taught—a system of universal truth self-evident to all spiritually advanced minds. The Christ idea, or the Christ spirit, presented and exemplified by Jesus, not his personality, is the real basis of His religion; but this has been overgrown, disfigured and hidden from our view by the rank weeds of sacerdotalism and speculative theology.

Those who revolt most strongly from "orthodox Christianity" often show that it is only the perversions of Christ's teachings, not the teachings themselves, that they oppose. Even its best friends are compelled to denounce these perversions. Miss Phelps said some time ago: "Theology is not Christianity. The words and the creed are not one and the same. The premise of the Master and the conclusion of the priest may diverge through the pressure of a hundred inevitable causes."

The symbolical language of Jesus has often received an intellectual interpretation very different from the spiritual significance which he designed it should bear. This fallacious literalism has led to strange and very serious results, and caused Emerson to remark that, "the idioms of Jesus's language and the figures of his rhetoric have usurped the place

of his truth; and churches are not built on his principles, but on his tropes."

Every reform, or attempt at reform, of Christianity has been but a revolt from the dogmatic corruptions of the church toward the spirituality of the religion of Jesus; but usually ecclesiasticism has violently crushed all such attempts. In vain the human mind, in its awakening strength of intellect and spiritual resurrection, would travel back, across the barbarism of the Middle and Dark Ages, to survey the rapturous scene of the Divine Man surrounded by the peasants and fishermen of Judea drinking in His simple but sublime words, the truth of which they recognized, not by means of intellectual acumen or culture—for that they did not possess—but by the spiritual perception of their souls. The established church has ever repressed these spiritual movements, as far as possible, sometimes quenching the very religion of Jesus as a heresy.

This beautiful system of religious truth began to suffer from the perversions of the human mind almost as soon as it commenced to be preached by the professed followers of the Master. "It was in vain," says Buckle, "that Christianity taught a simple doctrine, and enjoined a simple worship. The minds of men were too backward for so great a step, and required more complicated forms and a more complicated belief. What followed is well known to the student of ecclesiastical history." All the way down from the earliest times the history of Christianity is mainly the history of theological perversion—dogma after dogma being foisted on the religion of Jesus, and pagan rites, ceremonies, and festivals being grafted upon its instituted organization. The Rev. R. Heber Newton has with truth styled the latter the "flower of Paganism."

"The moral element of Christianity," says Lecky, "is as the sun in heaven, and dogmatic systems are as the clouds that intercept and dim the brightness of its rays." "Popular Christianity," says

Matthew Arnold, "at present is so wide of the truth that it fairly deserves, if it presumes to charge others with atheism, to have that charge retorted upon itself." The truth of this statement will be more obvious if we substitute *infidelity* for "atheism"; for dogmatic Christianity is most unquestionably, in a measure, unfaithful (infidel) to the teachings and example of the Nazarene.

It is true that, as a realization of his prophecy, the death and resurrection of Christ introduced the personal element into the religion which, as he taught it, consisted only of universal principles; for his reappearance on earth was preached as a decisive proof of the immortality which he so emphatically taught. This, indeed, became the cardinal, basic fact of early Christianity, and probably had the greatest effect in promoting its propagation. As the Rev. Dr. Huntington has said: "Neither the New Testament nor the first teachers said anything about *Christianity*: but 'Christ crucified' and the 'resurrection' [Greek, *anastasis*, rising], they could preach in jails and synagogues, turn the world upside down, counting it all joy."

The doctrine of immortality, proved by an actual fact—the spiritual appearance of Jesus after his death—sealed the religion of Jesus, gave it a vital force, and, but for subsequent ecclesiastical perversions, would have proved of vastly more importance to the world; chiefly because it would have induced mankind to study and embrace to a greater extent the religious principles and doctrines which this great fact seemed to establish or confirm.

The present protest against the perversions of essential Christianity is becoming too strong and general to be much longer resisted or ignored. The intelligence and rational spirit of the age demand a return to the religion which Jesus taught and illustrated, both by his life and death. This is to create a newly-awakened spiritual force that will lift the

world of humanity to a higher plane of thought and life, and fit it for the immortality (*aphtharsia*) which Jesus taught and promised to those who believed and practiced his doctrine. Thus only can our social system be freed from the evils which at present threaten almost its very existence. We believe, with W. R. Gregg (in "The Creed of Christendom") that "when we have fairly disinterred that religion of Jesus which preceded all creeds and schemes and formulas, and which, we trust, will survive them all, we shall find that, so far from this, the true essence of Christianity being renounced or outgrown by the progressive intelligence of the age, its rescue, re-discovery, purification, and re-enthronement as a guide of life, a fountain of truth, an object of faith, a law written on the heart, will be recognized as the grandest and most beneficent achievement of that intelligence."

Now, what will the official guardians of Christianity do in this matter? Will they supinely let the matter rest where it is, till forced by the criticism and intelligent demands of those outside of the church, but by no means non-Christian or un-Christian, to modify or abandon those doctrines that are now, even in the Christian pulpit sometimes, disowned and denounced? Or will they proclaim the supremacy of Christ's religion over all man-made systems and dogmas, thus breaking down the barriers of sectarianism that separate man from man, in the holiest and nearest of his relations, establishing a common basis for the religious education of the people—now an impossibility—and giving a new impulse to those universal principles of religious and ethical truth to which every really intelligent mind must assent, especially when stimulated by the thought, the culture, and the new light of this age? "If Christianity," says Canon Farrar, "is to hold her own, it must beware of stagnant doctrines and dead theologies. Theology must learn to change her mind voluntarily, and by her own insight, and

not be forced to do so only when the strangling grasp of science or criticism is at her throat."

These are words that should be heeded

by every friend of true religion, and every thinker and worker who is earnestly seeking the general good of humanity.

HENRY KIDDLE.

THE GENTLE MASTER.

"The best of men
That e'er wore earth about him was a sufferer.
A soft, meek, patient, humble, tranquil spirit;
The first true gentleman that ever breathed."

Hazlitt says the above "was by old, honest Decker, and the lines ought to embalm his memory to every one who has a sense either of religion, or philosophy, or humanity, or true genius."

Dear heart, I love thee for those words of thine;

Well have they won for thee immortal fame,

And starred with happy thought thy honored name.

True genius glows in every touching line,
And love with sacred reverence combine
In modest speech, lit with the holy flame,
In praise of Him, who bore no stain of blame.

Our Lord, the Christ, was human and divine;

The tender glance of pity, and the grace
Of his sweet, gentle, patient spirit shone
With the soft light of heaven on his face.

A king; he came in mercy from his throne;

Then, crowned with thorns, he suffered on the tree

To make us heirs of immortality.

GEORGE W. BUNGAY.

FAMILIAR TALKS WITH OUR YOUNG READERS.—NO. 9.

CONSCIENTIOUSNESS.

BENEVOLENCE, Veneration, Hope, Conscientiousness, Spirituality or Faith, are called moral faculties, because they have to deal with our everyday conduct in a certain higher sense than the intellectual faculties and the selfish feelings. The word "moral" comes from the Latin *mos*, which means manner, mode or way, and so we apply it to people's conduct, to law, art, literature, in fact, to everything as descriptive of the sort or kind to which those expressions of human thought belong.

Two general classes are included in manner, *good* and *bad*, and it is the office of the moral faculties to impress us with good inclinations, and help us to resist influences, that tend to evil. I have explained how Benevolence works to make us kind, sympathetic and tender, and serves when it is well developed as a check upon our becoming too harsh, grasping and selfish. In a similar way the other moral feelings are designed to

restrain the lower physical instincts of our nature, and with the instruction derived from experience to show what we need to grow into a balanced and noble manhood. In gratifying self only by eating, making money, wearing fine clothes, going on pleasure excursions, getting whatever we can, on the principle of looking out for Number One and letting Number Two look out for himself, we may find a kind of enjoyment; but it is a low, animal enjoyment, that does not make a man or a boy feel very proud of himself. If a person eat six plates of ice-cream and a dozen pieces of cake at a pic-nic, and afterward boasts of it, what would you think of him? Like an old lady friend of mine, when she heard of anybody's doing some beastly thing, you might say, "What a hog! he ought to go and put his head under a pump-spout, and let some one pump on him." But if at that pic-nic some person devoted all his time to entertain and

care for others, especially those who were feeble and needed attention, and did not even taste the cake and ice-cream, you would say that he was a really good fellow, and you could not help honoring him. You might at first pity him because he did not get his share of the goodies and the fun in the woods ; but, if you really knew the feeling of content and satisfaction his self-denial brought him, you would rather envy him. The fact, that people who care more about pleasing others enjoy life much better than those who are always looking out for themselves, does not seem to be understood by the young, because, I suppose, they do not give it much attention. Just try it fairly a few times.

One of the highest of moral principles is the sense of duty, of obligation to do whatever we can for the benefit of others. This principle is for the most part the function of the faculty we call Conscientiousness. There has been a world of writing and debate among professors of mental science on the nature of *Conscience*, the synonym of Conscientiousness, and I should only confuse the subject if I attempted to tell you what this one and that one supposes it to be. I can say, however, that the opinion of most of them is that it is a natural power in man that prompts him to desire to do what is right, and to avoid the wrong, and, therefore, condemns him when he has done wrong, and approves when he follows the right and true.

Conscientiousness sits in the circle of the feelings something like a judge or guardian of their action. A judge in a court-room is called upon to decide matters in dispute between persons. How does he do it ? By listening to what they have to say, and then referring to the laws of the land ; and if he is a fair, intelligent judge he decides in favor of the person on whose side the law clearly is. The laws give the judge the information he needs in the case. So Conscientiousness, to judge rightly, requires information or instruction, and that is

furnished by the intellectual or knowing faculties. We are in the habit of calling “Conscience” the “inward monitor:” you know what a monitor at school has to do—he or she is appointed by the teacher to keep a watch on the conduct of the class, and to report those who are disorderly. A good monitor tries to do what the teacher has set him to do, and works according to instructions. The teacher is his law-book. Conscientiousness, therefore, makes us feel account-



DIAGRAM OF THE ORGANS, ON THE HEAD.

able for our action, and prompts us to keep our promises, tell the truth, and holds back when we feel inclined to impose upon our neighbors in any way.

Far back in the ages men symbolized justice by the figure of a woman, blindfold and holding a pair of scales in one hand and a sword in the other. This symbolism is familiar enough to you and is beautifully true, for the sentiment of justice proceeds from an instinct or feeling that acts independently, is naturally blind ; and where the instinct is affected by training and associations, so that it's expressions are one-sided or partial, it no longer gives just judgments. You might see, then, that our education and kind of everyday life have a great deal to do with the action of Conscientiousness and every other moral feeling.

The sword in the symbol represents the readiness of justice to execute judgment. You probably remember that Roman judge, one of the Catos, so distinguished for their honesty and sincerity, who condemned his own son to death because he had taken part in a conspiracy. He was a kind father, but an unflinching judge, and well illustrates the action of strong Conscientiousness.

This organ has a central place in the brain. We have an organ of Firmness—perhaps in our next talk I shall intro-



JOHN GOODE.

duce it to your notice—which occupies a very conspicuous part of the head, the crown centre, No. 14 in the illustration. On each side of Firmness are the organs of Conscientiousness, one for each half of the brain (15). I think I have told you that the organs are all double in correspondence with the two divisions of the brain. A head that is pretty well developed at Conscientiousness looks high and rather broad in the crown, like the portrait of Mr. Goode, who was appointed Solicitor General not long ago by President Cleveland, but not accepted

by the Senate. Lawyers appear to have an unhappy reputation among the people for honesty, but they certainly need a good share of Conscientiousness if any of us do, and when the truth is known they have quite as much as other people. Men and women are generally willing to trust lawyers with their money and property; if they were not honest as a class this would not be the case. Mr. Goode is a Virginian, and became a lawyer when a young man, ten years or so before the commencement of the late war, and when the South attempted to set up business on her own account he entered the Confederate Army as a private. Doubtless this was a course prompted by a sense of duty; he felt that he should go with his state and people. He has, since the war, been appointed or elected to responsible public offices, and bears a good reputation for faithful service. We think that his face is a strong one, showing energy, independence and decision. There is nothing of the rogue or of a “Slippery Dick” in its cleanly cut lines.

A man who is inclined to be tricky avoids responsibility, does not keep his word, evades and deceives, is small in Conscientiousness. If you look at his head you are likely to find it quite conical in the crown, or low or hollow at the



SMALL CONSCIENTIOUSNESS.

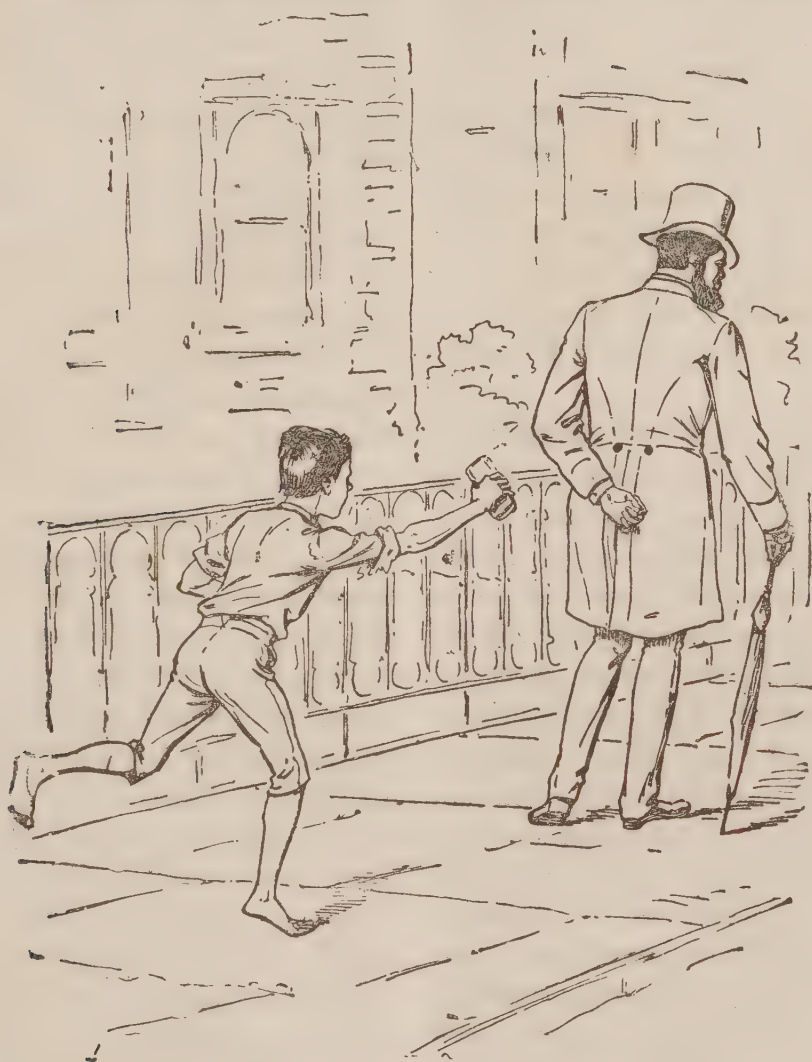
part where Conscientiousness lies. Look at the heads of your associates. If there are any you don't like, because they don't play “fair,” are always ready to take advantage of you, and will lie and pre-

varicate when detected in a cheat, just see if the organ we are discussing is not small as compared with organs lower down, especially those around the ear.

On the other hand you may be sure that the girls who are very sensitive about doing everything right, and who feel much hurt when they are wronged in any way, have large and strong Conscientiousness, and you will find their heads are full and round at the crown. I have known a girl to be so much in-

acter. This is especially the case if a person has not a good development of Benevolence, for then he is likely to be very sharp in his blame of others who commit offenses, and will be almost constantly calling his associates to account for this or that omission. Little things he will consider as of great importance, and be often quoting some old saw after this fashion :

He that stoops to steal a pin
Will stoop to do a meaner thing.



"HEY! DROPPED YOUR POCKET-BOOK, MISTER!"

fluenced by her sense of duty that if any member of her family did wrong she would suffer even to the extent of sickness; and if she ignorantly did wrong herself she would do anything to atone for it, and was depressed and melancholy for a long time. One can have too much of this sentiment, or rather it may be too active, and so exercise a really unhappy influence upon the char-

There are people who are much respected for their integrity, but disliked because of their harshness and narrowness. I have known men who were so rigidly just that they were even cruel sometimes in their treatment of others.

But we can better tolerate a severely just person than we can endure one who is dishonest and careless of his duty; because the former will never deceive us,

while the latter can not be depended upon at all.

I would have you realize the importance of this faculty ; how the order and welfare of society depend upon it, and how much pains should be taken in the education of the young with respect to its development. Thousands of boys and girls grow up into careless, reckless, faithless maturity who might under proper guidance have been made useful, respectful, duty-loving men and women. You all have ambition to succeed in life, to get reputation for something that is worthy. I don't know a better foundation for success than strict honesty and a prompt regard for those obligations that belong to our human nature. No one can be really great without being just and true in all his dealings with others. I think the poet uttered one of the sublimest of truths when he said :

"An honest man's the noblest work of God."

The boy in the illustration certainly shows a great deal of earnestness in his desire to restore the pocket-book to the man who has dropped it, and let us be willing to think that he is prompted by a sense of duty and not by hope of reward. You would think it mean though, and so should I, if a boy were not given something for the trouble taken to restore an article of value to its owner. I have heard of a good many instances of downright honesty on the part of boys and girls, and they are very pleasing to think about. One I must tell you of, as the conclusion of this month's talk. A little New York boot-black one evening polished the boots of a gentleman, who, as soon as the job was done, threw down a coin to him and hastily walked away and was lost in the throng of Broadway. The boy picked up the coin, supposing it to be his usual fee of five cents, and, being in a hurry to catch other "jobs," slipped it without examination into his pocket. Later, when he was counting over the coppers and nickels that had been earned that

day, he found a gold piece, \$5, among them, and quickly concluded that it was the gentleman's whose shoes he had "shined up" by St. Paul's. For over a month that boy went every day to the place where he had got the gold coin, and stayed there some time, carefully scanning every man who passed, when he was not busy with his brushes. At last a man stepped up and motioned to him to put down his box. The boy at once thought he looked like the gentleman who had thrown him the money so many weeks before, and he cried out : "Sir, ain't you the gentleman whose shoes I shined 'bout five weeks ago, right here ?"

"I don't know," replied the man, "perhaps so, why ?"

"'Cause, if you be, I think you give me a five-dollar gold-piece for a nickel."

"Well, now, my boy," said the man, "I did certainly lose just that amount some weeks ago, and it was in gold, too."

"I've got it all safe, and here 'tis," said the boy, producing the coin wrapped up in a piece of newspaper, and offering it to his customer. The gentleman took the money, put his foot on the box, and the boy without further remark went to work with blacking and brush. After the shoes had been polished the gentleman said : "I owe you for the last shine, and if you don't mind this will pay for both that and this time. Here's my name. When you're short in funds come over to my office." He handed the astonished boy the five-dollar coin with his card, and walked away, laughing heartily at the mingled expression of surprise, doubt and pleasure that marked the boy's face and manner.

EDITOR.

Yet still there whispers the small voice within,
 Heard through Gain's silence and o'er Glory's din :
 Whatever creed be taught or land be trod,
 Man's conscience is the oracle of God.

Byron

CLOVIS AND CHARLEMAGNE.

TOWARD the middle of the 5th century a king named Merovaens reigned over a few petty tribes in Burgundy and neighboring provinces. He was the founder of the first Frankish dynasty (the Merovingians) in Gaul. His grandson, Clovis, greatly increased their dominions and conquered other tribes, taking their lands in the most unscrupulous way. After making stepping-stones of friends and allies he would coolly put them out of his way by putting them out of life; in this manner he became king of all the Frankish tribes. He fought with the Romans and gained the country as far as the Loire. Then he determined to push back the Allemanni tribes, and the two nations met upon a wide plain in fierce conflict. When the Allemanni seemed about to win the day, Clovis, falling upon his knees, vowed if victory should come to him he would become a Christian. The tide of battle turned in his favor, and upon the following Easter he and three thousand of his followers were baptized by the Bishop of Rheims. Thus the Christian faith came among the Franks, and Clovis was henceforth known as "the most Christian King." His conversion was, however, but a name; it touched not his heart or prevented his warring against and destroying other Christian people. It is told that Clovis killed with his own spear the Visigothic king, Alaric, when striving to win from him Southern France. But Clovis' part of world-history and life closed with his forty-third year, and death came to him at Paris in the year 511, and his dominions were divided among his four sons.

These Franks were originally a Germanic tribe that lived during the third century in the Low countries and upon the Lower Rhine, but when the Roman power declined they gained that part of Gallia, now France, north of the forest of Ardennes. They were divided into

several tribes, each of which had its own king, or prince, and they had been known even in the time of Augustus. As early as 600 the power of these later princes had become so feeble that the mayors of the palace were the real rulers. The last of the Merovingian Kings was Childeric IV. who was nominally deposed by the mayor Charles Martel, who was king in reality, while Childeric retained only the form of sovereignty. But the son of Charles Martel, Pepin, Le Bref, deposed the king, took his place upon the throne and became thus the founder of the Carolingian line of rulers. King Pepin died in 768, leaving the kingdom he had stolen to his two sons, Carloman and Charles, known afterward as Charlemagne. The former died in 771, and the nobility, wishing Charles for their king, deprived Carloman's sons of the succession. Their mother took them to the court of Desiderius, king of the Longobardi.

Charles summoned an imperial diet at Worms the following year, where he proffered charges against the Saxons for their incursions into his territory, and he also dwelt upon the hope of converting them to Christianity. Thereupon war was declared against them, a war which continued with a few short intervals of peace for thirty-two years. The Saxons were often conquered upon the battle-field, but almost immediately rose again and made further incursions and depredations whenever the Frankish army was withdrawn.

Desiderius made war upon Pope Adrian because he refused to anoint Carloman's sons as kings; so at the Pope's call for help Charlemagne hastened to Italy, planted his army before Pavia for a six months' siege, went to Rome at Easter, and then took Pavia and sent King Desiderius with a shaved head to a Frankish monastery, where he soon died.

In 778 Charlemagne conquered a

part of Spain, known as the Spanish Marches, and formed a place of refuge for Spanish Christians. But he could not conquer a peace with the Saxons; they continually revolted, they hated Christianity, hated paying tithes and loved freedom. At one time, in anger at their repeated rebellion, Charlemagne devastated their country and had 4,500 prisoners beheaded. Now the entire Saxon nation rose in revolt, two deadly battles were fought, and the Saxon Duke Wittekind was forced to take an oath to go to France and be baptized. This oath was fulfilled in 785, Charles standing sponsor to the Duke and his wife Gera.

The Saxons now seemed subdued; several bishoprics were founded among them. A long line of frontier provinces as defences against Austria and Hungary governed by margraves, was established from the Adriatic Sea to the Elbe. The Saxons gave more or less trouble until along in the ninth century. To obtain complete peace he moved 10,000 of the most troublesome from the North Sea down into Frankish lands, their home he gave to other tribes.

During the first thirty years of his life the king was continually moving from Saxony to Italy, then to the Elbe, to Hungary, hither and thither, as the tide of battle rose in one land or the other, making all yield before him. Charlemagne was ruled by Theodoric's great idea, the idea of German unity. For some time he made the seat of his empire at Ingelheim, then moved to Aix-la-Chapelle.

Charlemagne was a true champion of the Church, and fought for the extension of Christianity as well as for empire. He founded churches, monasteries, and bishoprics; he caused the Saxon youth to be taught Christian doctrine; he took measures to improve Church psalmody, and imported organists and singers from Italy to aid his purpose, besides organizing singing schools; he caused the best sermons of the Greek Fathers to be translated into the Frank-

ish language and read to the people, and ordered that sermons should be preached in the national language; the art of writing was greatly improved, and he tried very diligently to cultivate himself, his family and his people.

Regarding the tithes for the Church, he arranged that one-fourth should be paid the bishops, one fourth should be given the inferior clergy, the poor should have one-fourth, and the remainder should be used to repair the churches. He decreed that taxes should be levied upon his own estates, and that communions, baptisms, and burials should be free. By all these laws and regulations he laid the foundations of order and permanence in his realm.

In 800 Pope Leo III. needed assistance, and Charlemagne hastened to Rome. Upon Christmas Day he was present at the service in St. Peter's. As the King knelt, during high mass, at the altar, Leo brought an imperial crown and placed it upon his head, while the people cried out "Charles Augustus, Emperor of the Romans, hail, all hail, and victory!" Then the Pope knelt before him.

Upon his return home all his subjects above twelve years of age were obliged to renew their oaths of allegiance to him as emperor. Now all the Christian Germanic nations except England were united under one chief ruler, in one great confederation, in which all national peculiarities were respected, as well as national laws and national manners.

Eginhard, the secretary and friend of Charlemagne, describes him as "strong and robust, of great height, for he measured seven of his own feet. He had a round head with large, bright eyes, beautiful hair, a countenance joyous and cheerful. His figure was dignified, his health constantly good to the last four years of his life. He was temperate in eating and drinking; during meals he listened to music or reading. He delighted in the books of St. Augustine

He wore the national costume ; next his body a linen shirt and long hose, then a doublet and laced shoes. In winter he had a waist-coat of otter-skin. As an outer garment he wore a mantle. He wore also a golden-hilted sword ; sometimes he wore one inlaid with jewels. He never adopted foreign dress save twice at Rome ; once to gratify Adrian, and once at Leo's wish he wore a long robe of imperial purple and a broad mantle, with shoes of Roman fashion."

Eginhard says further that, "Charlemagne expressed himself in clear, concise language, and had studied the classics, so that he spoke Latin as well as his native tongue, and was so proficient in Greek he might have become its teacher."

He built the splendid minster at Aix-la-Chapelle. He had all the pillars and marbles used in its construction brought from Rome and Ravenna. In order to protect Christians in the East he maintained friendship with Aaron, King of the Persians, known as Haroun-al-Raschid, Caliph of Bagdad, who ruled over most of the East save India. For full three centuries baptised kings had sat on the throne of France, and the great races of the Teutonic nations, that over-spread Spain and Italy, had called themselves Christian for a still longer time, but Charlemagne seems the only ruler who, with all his faults and even cruelties and wars, may be called a truly Christian king.

The Emperor's domestic relations would scarcely win approval at the present day, though perhaps not more irregular than those of some European sovereigns. His first wife, Desiderata, he disliked so much that he soon divorced her and married again. He had several children, the most promising son died. His daughters are described as beautiful, yet neither of them were publicly married. There were none save subjects for them to marry, and their father seemed satisfied with the relations they established with the chaplain and the secretary. After the death of his last

wife, Charlemagne had three sons by women not his wives. All these were educated for the church. He had in all four wives and fourteen children, six of them were illegitimate. He used to take his family with him everywhere possible for them to go, and, it is said, was very much attached to his children. His oldest son revolted and plotted against him ; this son the Emperor forced to become a monk in order "to give him time to repent and pray for the salvation of his soul."

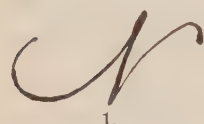
The support of the royal family came from the revenue derived from his farms. The produce was sold in the market the same way as that of any other farmer. Kings at this time usually lived upon their own family property. In the year 813 Charlemagne, feeling the weight of years upon him, sent for his son to come to him at Aix-la-Chapelle, and there, on a Sunday, in the Cathedral, he exhorted Louis to become a good monarch, and then bade his son place his gold crown, then lying upon the altar, upon his own head ; then the aged monarch presented Louis to the assembly as the future king of the Franks. In January, 814, the Emperor took a fever, and, according to his custom when ill, he tried fasting, but did not improve. Upon the eighth day of his illness he knew death had won him. It was the 28th of January at five o'clock when he marked with his right hand the sign of the cross upon his forehead, bosom and feet, then, folding his arms, closed his eyes, murmuring, "Lord, into Thy hands do I commit my soul," and thus passed away. He was seventy-two years of age, and had reigned forty-six years. The body was borne to the vault of the church. There, clad in imperial robes, with a golden gospel spread on his knees, a piece of the holy cross on his head, he was seated upright upon a marble chair. The vault was then filled with balsams and spices and closed up. There Charlemagne slept the last, long sleep of earth.

INDICATIONS OF CHARACTER IN HANDWRITING—NO. 7.

THE letter "N" is less expressive than the previous capital, yet it affords scope for the revelation of striking traits of character, and will, therefore, well repay attention.

The first illustration is from an addressed envelope of Thomas Cooper's.

A stately, dignified letter; poetic grace and refinement in the simplicity of the form, and a well-regulated imagination, combined with a firm will, in the bold and easy-flowing upstroke.



1.

2—The first initial in the signature of N. P. Willis, the poet. Here great imagination is shown in the bold and flying upstroke, while the preliminary downstroke is indicative of impetuosity, impatience, and an inclination to anger. There is great tenderness revealed in the slope of the lines, and a tendency to melancholy in the compressed, "pushed down" position of the letter. From the



2.

indications of this letter, I should assume Willis to have been a most sensitive man—one upon whom the rude hand of criticism would come with an overwhelming shock, and one, also, whose high ideal was seldom attained.

3—Here is the letter "N" from the signature of Florence Nightingale. Har-

mony, grace and sense of the beautiful are in the clear and flowing lines, tenderness in its sloping position, and goodness in its rounded curves.

4—In contrast to the foregoing is the capital "N" in the signature of Napoleon

I., the Emperor of the French, from the fac-simile of a letter to the Princess Borghese. Here is extreme originality in the whole form of the letter, ardor and

quickness of temper in the angular curve, and a despotic will in the thick,

straight line of the termination. In the rest of the writing there is finesse, amounting to dissimulation, and other signs of a brusque and despotic temper.

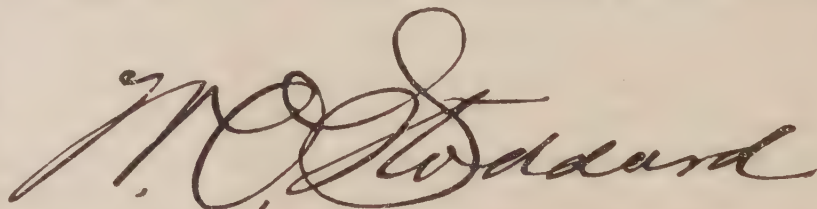
The letter "O" occurs but seldom, and, therefore, is not, on general principles,



4.

of so great importance as letters that occur with greater frequency. Yet, when the letter is written much larger in proportion than the small letters, or possesses extravagant flourishes, we have invariable signs of an ill-regulated imagination, vivid, but uncontrolled. When, instead of curves it is composed of angles, a strong and firm will; if angular only at the base, a keen penetration, and considerable power of perception. When it is formed in one round, beautiful curve, we have harmony, artistic grace and aesthetic tastes; and if the indications in the body of the writing harmonize there is also poetic feeling. Sequence of ideas is clearly brought out if the curve from the top turns down and flows into the making of the next letter of the word.

5—This letter is from the pen of W. O. Stoddard, the writer of the life of Abraham Lincoln, to whom he was private secretary for some time. In this letter we have harmony and grace, with somewhat of self-consciousness in the extra flourishes which connect the letter "O" with the preceding and following



5.

ones. There is not much imagination in the character, but an even flow of

ideas, practical and clear, is evidenced by the continuous flow of the pen and the graceful contour of the curves. Generosity and kindliness are indicated in the fullness of the letters.

6—In this "O" of Oliver Wendell Holmes we have grace, harmony, refinement, tenderness and penetration very vividly brought out. The simplicity of the letter is indicative of a very high order of cultivated intelligence and refinement; the utter absence of flourish shows a simple, unaffected mind; the angular base gives a key to the penetration possessed by "The Autocrat," and the gentle slopes reveal a tenderness nearly equal to that which Cowper must have felt when he wrote:

I would not enter upon my list of friends (though graced with polished manners and fine sense, yet wanting sensibility) the man who needlessly sets foot upon a worm.

—*The Task.*

Oliver
6.

ter to Lord Normanby. Originality very marked in the large, eccentric form of the letter, acuteness in the angular stroke before the commencement of the down-stroke, a certain gracious kindliness in the rounded lines of the up-stroke and the head of the letter.

8.

9—The autograph of Wendell Phillips, the anti-slavery agitator and humanitarian. Here are tenderness in the slope of the downstrokes, originality and eccentricity in the peculiar head of the letter "P," sequence of ideas in the easy flow of the pen to the next letter, ardor and grace with impetuosity in the bold stroke at the commencement of the letter. The whole autograph shows strong will, power, generosity almost too prodigality, and great poetic and artistic taste. Quite different in appearance, and yet very similar in many of its indications is

Wendell Phillips
9.

Imagination, controlled and subdued, is evidenced by the boldness and height of the capital compared with the small letters, and sequence of ideas in the easy and graceful connecting link joining it with the letter "l."

The letter "P," like the letter "L," reveals much to the graphologist, as it lends itself to exhibitions of conceit, vanity and egotistical pretension.

7—This letter appears in the signature of Louis Phillipe. What egotism and pretension in all those twists and flourishes, so intricate as to cause one to wonder which was made first! And yet, with all this parade, what a compression, amounting to meanness, there is in the letter! Egotism, pretension and vulgarity of mind are here conspicuous.

7.

8—The capital letter "P" in Lord Palmerston's signature on a franked let-

10,—from the heading of William Cullen Bryant's "The Poet." Here simplicity of taste is shown in the using of a small letter for a capital, generosity, and an open, truthful disposition in the fullness of the last curve, poetic grace in the general contour of the letter, strength of will in the firm terminal down-stroke, and ardor in the leading stroke.

Poet.
10.

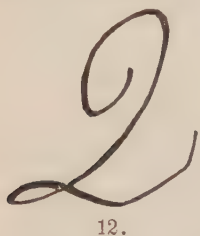
11—The "P" from President Noah Porter's signature. Strength of will is strongly marked in the angularity of the writing, dignity, grace, and yet forgetful-

11.

ness of self in the utter absence of any flourish, simplicity of thought in the slightly built capitals, which exceed very

little in size the ordinary writing, and sequence of ideas in the easy flow of the pen in joining one letter to another. Dr. Porter is one of the few men, if his handwriting is a true index to his character, who can in the spirit of it obey the command of Christ expressed in Matt. vi. : "When thou doest alms let not thy left hand know what thy right hand doeth."

The letter "Q" occurs seldom, yet like "L" and "P" reveals much. I have no other examples at hand than those given by Miss Baughan, so I must be content to quote her without addition.



12.

12—From a young lady's letter. Goodness and grace in the harmonious curves, but no imagination or originality.

13—From a foreign hotel keeper. Originality and imagination are not wanting here, but there is extreme vulgarity in



13.

such an excess of ornamentation and the long line running downwards after the second quite superfluous loop, indicates extreme egotism.

This person sees himself and his own

interests in everything, despite a certain prodigality indicated by the many unnecessary lines in the letter.

The letter "R," like "H," gives a clue to the possession of artistic perceptions in a large degree. When angular in its form it exhibits more than any other letter the quality of perception, and like all other capitals of a similar form, it is capable of being so flourished and exaggerated as to reveal all the egotism, pretension and self-assertion possessed by some natures.

14—In this specimen we have a most beautiful letter. It is from the signature of that lovely Christian character, the gifted Frances Ridley Havergal, whose poems and religious essays have been

read throughout the Christian world. Here, in the firmness of the upper part of the downstroke, strength of will and determination are revealed. The first curve



14.

as the letter takes its up-stroke is very beautiful in its symmetry, betokening the refinement and grace of the writer. The highest type of cultivated intelligence is expressed in the simplicity of the form, while acute and keen penetration is shown in the four striking angles of the down-stroke. Tenderness and sensitiveness in the unusual slope, and ardor in the boldness and vigor of the up-strokes and terminals are also strongly indicated throughout the whole of this writing.

15—The signature of John Ruskin, the eminent art critic and writer. Wonderful imagination revealed in the disproportionate head of the letter "R," with somewhat of egotism in its fantastic shape. The curve, however, in itself



15.

is graceful and simple, thus indicating a large sense of artistic perception. This letter suggests originality in every line of its peculiar formation, and ardor in its wide, sweeping up-and-down stroke.

16—The "R" from the autograph of the philosopher and poet, R. W. Emerson. Tender sensitiveness and gentle kindness are here shown in the sloping direction of the letter. Ardor and brilliancy of imagination in the immense sweep of



16.

pen required in making the up-stroke, the utmost refinement in the simplicity of its formation, whilst a certain gentle positiveness exists in the fact that

the letter commences with a firm and bold up-stroke. An acuteness of angle in the general body of the writing also suggests a penetrating and keenly perceptive mind.

17—The capital "R" of Gounod the

composer. A letter in its simplicity approaching the character of the printed form of the letter, typical of artistic feeling. Imagination is suggested (but not of the highest order) in the head of the letter, which is so much larger in proportion than is usual to the base of the letter. As a rule, musicians who are composers and not mere executants have the signs typical of imagination as well as those of artistic feeling and sensitiveness in their handwriting. This will be readily understood; the executant is merely the exponent of the composer's creation; what the actor is to the dramatic poet, and, though the creative faculty of imagination is in some degree necessary for the complete success of the executant, in either case, we do not generally see it in any remarkable degree in either actor or executant musician. In some

R. of the capitals of Mendelssohn, Meyerbeer and Rossini we have strong evidences of vivid imagination; but the strongest combinations of imagination and artistic feeling are to be found among the poets, rather than the musicians.

18—The initial "R" of the signature of Robert Dale Owen, the philosopher and statesman. Great originality to eccentricity and ardor in the bold and striking upstroke, firmness of will in the angularity of the letter, somewhat soft-



18.

ened by the kindly sensitiveness and tenderness exhibited in the slopes. An unattained ideal, which is placed very high, is exhibited in the decline of the capitals in the remainder of the signature. Easy flowing sequence of ideas in the ready linking of the letters.

The letter "S" is written in such a variety of ways and is so expressive of various mental types that it well repays

a most careful study on our part.

19—The capital "S" in the signature of Sarah Bernhardt, the French actress. Much tenderness in the sloping line, and great strength of will in the striking angle at the top of the letter, but the good qualities are quite spoiled by the wild and ex-



19.

travagant flourish, which makes the final curve so expressive of selfishness and vulgar conceit. This

flourish, however, betokens originality and imagination. The remainder of the signature reveals great secretive power. Compare this with 20, from the pen of Sarah Siddons, the great English actress. Here we have grace, dignity, nobleness and refinement in the simple beauty of an elegant letter.



21.

21—The "S" of Samuel Smiles, the distinguished author of "Self Help," "Thrift," and other books of a world-wide renown. Ardor and tenderness in the bold sloping upstroke, freedom from pretension or conceit in the absence of flourish, a refined and cultured imagination in large and simple curve at the base are all exhibited in this letter.

22—From the signature of John A. Sutter, one of the best known of the early pioneers of California. Grace, simplicity and native dignity in the clear, free outlines, poetic graces in the harmonious curves. Great ardor and daring impetuosity, with considerable ambition, combined with lucidity of ideas are expressed in the remainder of this signature.



22.

The latter were evidently the controlling elements which led Mr. Sutter to dare the wilds of California in its earliest days.

"For originality amounting to eccentricity we do not think the capital 'S' we have given from the writing of Cruikshank, the caricaturist," says Miss Baughan, "is to be surpassed. It occurs in the first line of a long letter addressed to Samuel Prince. There is sensitiveness

in the sloping position of the letter, and its length, running into the letters of the other line, announces generosity to



23.

prodigality. A careless, eccentric, but not untender nature, with much originality would be our verdict of the man from this letter; but, of course, in judging of a handwriting every letter must be examined, every dot to an 'i,' every turn of an upstroke or downstroke, must be taken in to account. The large, angular splinter of a dot to the 'i' in the word 'Sir' means a careless prodigality.

24—"The 'S' in the signature of the

Christian name of the Bishop of Carlisle. Cultivation in the harmonious lines, force in the decision of form. The whole signature is valuable as typical of the qualities of lucidity and benevolence—the former shown in the extreme clearness of the handwriting, the latter in its



24.

rounded curves. There is caution as well as attention to detail shown by the two dots under the abbreviation of the Christian name, and decision and strong will in the firm, heavy line beneath the whole of the signature."

GEORGE W. JAMES, F.R.A.S.

THE DISCOVERER OF CALIFORNIA'S GOLD.

JAMES W. MARSHALL, whose portrait appears with this, has a world-wide reputation for his revelation of the gold deposits of California. His career, aside from that almost accidental event, is not without interest, connected as it is with the early explorations of the Rocky Mountains, and the settlement of Upper California by enterprising Americans from the Eastern States. He was born in the township of Hope, New Jersey, in 1812; received but moderate school education and was apprenticed to learn the trade of coach and wagon making. At the age of twenty-one he caught the "Western fever," and journeyed first to Indiana, then to Illinois, and finally to the Platt Purchase, near Fort Leavenworth, Kansas. Here he purchased a farm, and was prospering, when he was attacked with malarial fever, and after struggling with the disease for some years he was told by his physician that he must leave that region if he wished to live.

People had then begun to talk about the fertile valleys and broad rivers of far-away California, and on the 1st of

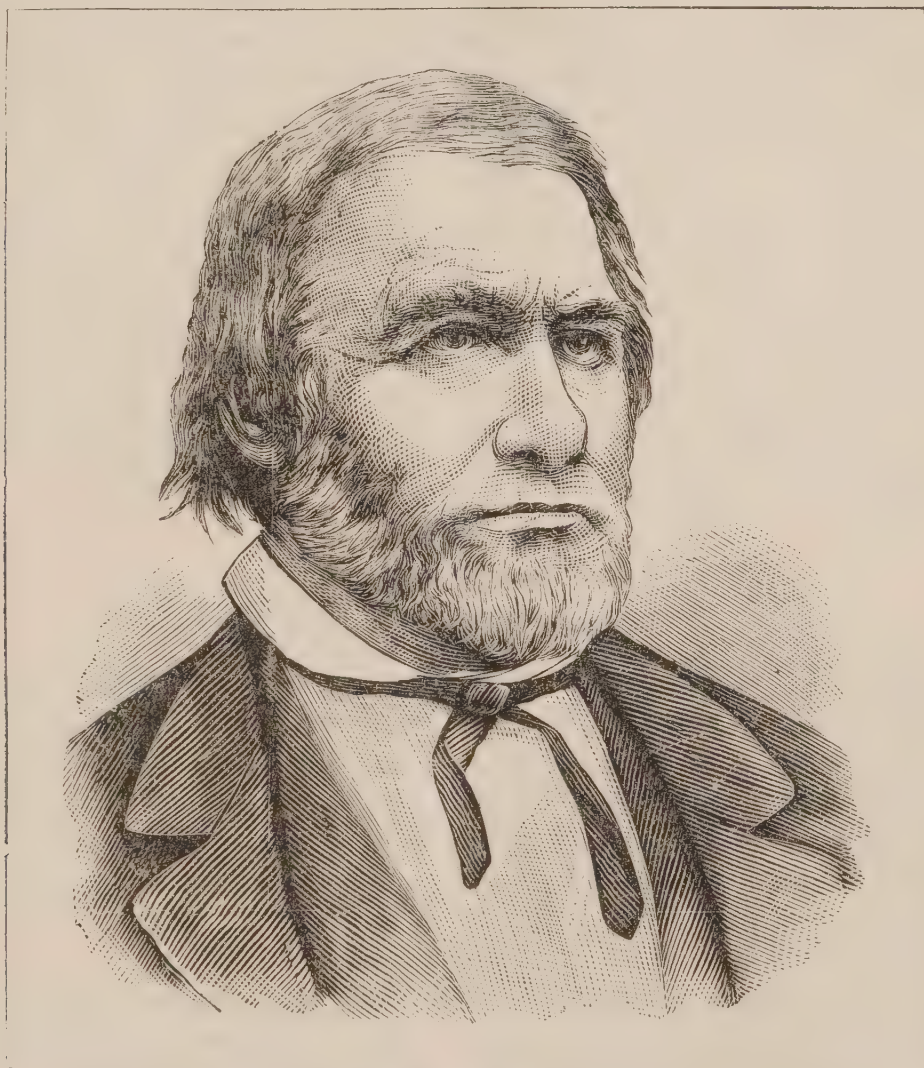
May, 1844, Marshall, with a train consisting of 100 wagons, set out for the then almost unexplored West. After a long journey, full of adventures, the party succeeded in crossing the mountains, and reaching California in June of the following year, and camped at Caché Creek, about forty miles from where Sacramento now stands. The adventurers parted here, journeying in several directions, Marshall and a few others going to Sutter's fort, where Marshall went to work for General Sutter.

Marshall continued at the fort until the summer of 1846, when the Mexicans, hearing that a large body of American emigrants were crossing the plains, resolved to prevent them from entering California. At this time General Fremont was camped at Sutter Buttes, near Marysville, and he, joined by Sutter, Marshall and other whites, prepared to defend their countrymen, and what was known as the Bear Flag war was inaugurated. Marshall took a prominent part in the engagements of that short war, and when in March, 1847, the treaty was signed by which the inde-

pendence of California was secured, Marshall procured his discharge and returned to Sutter's Fort.

Before the Bear Flag war Marshall had purchased two leagues of land on the north side of Butte Creek, in what is now known as Butte County. But when he returned to it after the conclusion of peace he found that the majority of his stock had strayed or been stolen. He, however, set to work to retrieve his

that Marshall was superintending the building of the mill race. After shutting off the water at the head of the race he walked down the ditch to see what sand and gravel had been removed during the previous night, and while looking down at the mass of débris his eye caught the glitter of something that lay lodged in a crevice on a ruffle of soft granite. He stooped and picked up the substance. It was heavy, of a peculiar



JAMES W. MARSHALL.

fortunes. Having decided to go into the lumbering business he fixed on Coloma, in El Dorado County, as a good location for a sawmill. Sutter agreed to furnish the capital for the enterprise, and Marshall was to be the active partner. The articles of partnership were drawn up by General Bidwell, and work was commenced on the mill about August 19, 1847.

It was on the 18th of January, 1848,

color, and different from anything he had seen in the stream before. He reflected as to what kind of mineral the specimen could be, and finally concluded that it was either mica, sulphurets—or gold! It was too heavy for mica, and was not brittle, as are sulphurets; and, remembering that gold is malleable, he placed the nugget on a flat stone and began striking it with another. The substance did not crack or flake off, but

simply flattened under the blows, and Marshall was satisfied that he had made an important discovery.

In the course of several days he collected a few ounces of the precious metal, and, as he had occasion to visit Sutter's fort, he took the specimens with him. He informed Sutter of his discovery, but the General was incredulous, and it was not until chemical experiments had settled the question beyond all doubt that he would admit that the mineral was gold. At last all uncertainty faded and the news flew over the country like wildfire, and those whites who were then in California went into the search for gold with great ardor and energy. Additional revelations were made daily, and the news of the discoveries was further spread. Then came the mad rush from the East and the Old World. In 1849 every sailing vessel and steamer landing at San Francisco was crowded with adventurers. They knew that gold had first been found at Coloma, and many went

thither. Without inquiry or negotiation they squatted upon Marshall's land about the mill, seized his work-oxen for food, confiscated his horses, and marked the land off into town-lots and distributed them among themselves.

From this time on Marshall was the victim of persecutions. Many believed that he knew of the whereabouts of valuable gold mines, and he was watched closely and badgered because he did not give information. Driven from his property he became a prospector, but never with great success. The discovery which brought fortunes to thousands, and made California a great State, proved his financial ruin, and subjected him to endless insults and injuries. He became involved in litigation as to the title of the land itself, and finally lost it all, and he remained a poor man, residing at Coloma, near the spot where, so many years before, he picked the glittering nugget from the sand.

THE WONDERS OF SCIENCE.

THE assertion that there are more things in heaven and earth than were ever dreamed of in philosophy is justified by our aspirations to attainments transcending the present limits of human knowledge. We stand upon the limits of the known, amid the footprints of gone-by generations, dissatisfied with the attainments of the race, and looking for further developments of the wonders of existence. We turn to the book of nature ; it teaches that nature is an organic whole, perfect, active, harmonious. Its ultimate elements were endowed with organic power, and stamped with the condition of change prior to their organization into a moving universe. As a consequence of this condition force is evolved from the vast magazine of nature, and we behold the phenomena of nature, planets and suns, having sprung from primeval chaos, rolling in grandeur through the trackless realms of infinite

space ; vegetation clothing the earth with verdure, and holding stored forces which are ready to be transferred to the animal kingdom and converted into physical force, and in its different transformations coming under the law of types, and developing into different genera and species.

Life is the transcendent mystery of nature, but it is not something that entirely eludes all investigation and solution. Nature answers to mind in physical correspondences, but vital force is not an abstract metaphysical principle. "The motions of the everlasting suns shot in radiant forms across the universe reappear in the movements of organic beings. The unity of the grand scheme of nature is unbroken, the harmonies of earthly life are but cadences of the music of the spheres."

There has been a reluctance to accept this theory and a preference to ascribe

the living process to a mysterious and inscrutable agency that evades all investigation and solution, but this has now given way to the more scientific deduction that is the result of investigation, according to law and order, for whatever obeys law can be investigated, and there is no anomaly in all nature. This leads us to view all things from a scientific stand-point. We see, then, that nature is replete with those elements which, being actuated by chemical force and the other forces of nature will organize into living structures. Hence, as a result of this, nature teems with life and moves with activity.

While there are many agents that act as powerful factors in the advances of organization, according to certain laws, there is a grand end that seems to be the culmination of all positive forces ; this may be defined as the "perfection of structure and harmony of function," according to the great primal law of physiology. It is the province of all organic bodies, whether vegetable or animal, to gather and store the life-forces of nature to accomplish the ends of organization and growth, and then to be transferred to other bodies for the same purpose in working out the wonders of existence. So the food we eat has been a part of the ethereal air, has entered the laboratory of nature in the vegetable kingdom and, perhaps, performed a thousand rounds in the cycles of time. The matter that composes the most delicate flower may have entered the composition of the rudest structures before it was tinged with beautiful hues and

made an object of grace and beauty.

It is a remarkable fact that nature represents an ascending scale, beginning at the lowest radiate and reaching the highest vertebrate, consisting of radiate, mollusk, articulate and vertebrate. The radiate being the lowest order in the animal kingdom possesses very low vitality. It was this order that was the harbinger of the coming generations during the Silurian age and that began to gather the life-forces for the higher types of life. This ascending scale culminated in the vertebrate. If we notice some of its different types of organization in its ascending scale, we find a marked similarity in all till the climax is reached in man, the last and noblest work of creation. For instance, the fins of a fish, the wings of a bird, the forelegs of a beast and the arms of a man bear a common resemblance and are different modifications of the same type. We see that at each successive step a higher grade of organization is manifested. Nor is this all ; at the same time man is endowed with ever-unfolding faculties that constitute him an intelligence susceptible of endless improvement. When we undertake to define his intellectual and emotional faculties what terms are adequate to convey their full meaning ? The mind may run in the realm of thought to the last shore of expiring time, but it does not stop there ; it transcends the sensual and ranges beyond, and shows that we are beings of immortality, a part of universal mind moving in universal space.

D. N. CURTIS.

HOME REFORM.

WE may publicly cry, "Reform ! Reform !! Reform !!!" until our throats are sore, and if we do no more than this things will remain as they are, and our crying will be in vain. What is most needed in this work of reform are men and women of earnest convictions and decisive actions, who

are as deeply interested and will labor as faithfully in the work at their homes and places of business as they are interested and do work publicly in the other branches of this great and much needed movement.

In order to do much and lasting good we must begin right and keep right.

We must begin at the beginning. We must first cleanse the fountain—the home—and then that which flows from it will be pure. We may publicly, as earnest workers, spend much of our time to no advantage. This, if devoted to our home circles, and acquaintances who need words of caution and encouragement, would accomplish at least some good, and, beyond doubt, would prove permanent.

“We seek too high for things close by,

And lose what nature found us ;

For life hath here no charms so dear

As home and friends around us.”

By laboring in our sphere at home we would yet be public benefactors ; for the home is a part of the public and should be the conservator of public morals. Every home-circle seems private to itself, and so it is ; but it is the members of these circles taken together which form this powerful public, to win the favor of which some men and women will sacrifice their best comforts and destroy the welfare and happiness of their family.

Let us assiduously spend as much time and thought in developing and executing plans to amuse and instruct our “folks at home”—to make home beautiful and pleasant for each member—as we do in courting “public opinion,”

which “is a jaded horse” at the best, as some one has well said, and I will venture to say that we will then merit, gain and hold both public and private esteem ; one of which is, in many instances and to the detriment of the public good, obtained at the expense of the other ; and in so doing we will finally do more toward effecting an universal reform than the entire host of the so called “public reformers” of the age.

As one writer has said : “Men are for the most part what their homes have made them ; and as men make communities, and communities make states, and states make nations, it follows that the great power of moulding the destinies of men and nations lies mainly in the influences of home. Whatever, therefore, contributes to the development of this home influence is of vital interest. America looks to-day not to legislative enactments nor to public organizations, but to her homes, as containing the bud and promise of her future glory.”

If we, therefore, expect ever to secure our much coveted prize—public virtue—we must not neglect our homes. We must first be honest and earnest with ourselves. We must act consistently. Then, and then only, can we influence others for good.

BENSON.

HOW SHE FIXED UP HER ROOM.

A WRITER in a Hartford, Conn., paper has been peeping into the home arrangements of a young working girl, and thus describes what she did to make herself comfortable under circumstances not altogether encouraging to most of us.

The floor, painted by her own hands, is a dark walnut shade, partly covered by a large rug made of cheap ingrain carpet in a small pattern of cream and olive, bordered by a broad band of plain olive felt. The inexpensive wall paper is plain olive, flecked with pink, finished by a narrow olive frieze, terminating at

the corners with a cluster of four tiny pink fans. One window faces a dingy brick wall, and she painted the window panes in bright water-colors, following a pretty traced pattern, which gives a bit of stained glass quite effective in the pretty room. The other window is draped gracefully with long full folds of sprigged muslin, depending from rings on a plain pine roll, to be replaced in the winter with a heavier curtain of olive cotton flannel.

The furniture is light wood, and a lamp with a rosy transparency stands on a five o'clock tea-table of unvarnished

wood and throws a soft light over the room, which also contains books, shelves of pine, a couple of second-hand easy chairs and a small dry goods box for shoes, covered by her own hands with pink and olive cretonne. A large clothes-horse, on which she pasted the story of Cinderella in Walter Crane's pictures over olive paper, shuts off the washstand and bedstead from view. The toilet accessories, set off with sprigged muslin over a pink lining, are a pink and white washbowl and a large pitcher of the quaint shape that comes now in the cheaper grades of china; a second-hand wardrobe, draped with a portiere of olive Canton flannel, contains the unæsthetic dust-pan, brooms, and other homely articles necessary to neatness and comfort; all trifles of that description bought

at the five-cent counters.

A pretty willow rocking-chair, ornamented with olive and pink ribbon, and a knitted hassock to match, the two latter Christmas gifts, stand on the rug. On the olive-draped mantel are grandma's Nankin tea-pot, two tall silver candle-sticks, and a large ginger jar, not decorated and spoiled with gummed on pictures, but left in its pristine blue and white beauty, filled with white daisies gathered on Sunday afternoon walks. Two or three photographs of good subjects, that are better than chromos and cost less, hang on the wall and complete the pretty refuge of this proud and industrious girl, who is self respecting enough to earn her own living rather than to be dependent upon her rich relations.



GOOD-NATURED MUSINGS.

GOOD hating makes bad mating.

One who wears too much red is not well read in matters of taste.

Take in a plenty of air but don't put on airs.

There are tongues which are "set on fire of hell" when they slander their neighbors, but I have known tongues which are made of ice, judging by the freezing words they utter.

Were I to typify qualities by color, I would paint truth as blue, which is cool, love as red, which is warm, and wisdom as violet, which combines both colors. Either quality alone is disastrous; both combined give celestial harmony.

They say we are like what we eat. It is not well to be hoggish, therefore we should eat accordingly.

Voltaire advised two dull actors to plant themselves in the sun for six months so as to gain more acuteness, and physiology declares that the sun's rays are a better stimulus to mental action by five hundred per cent. than any form of alcohol. This goes to show that people whose brains are soft and not well

baked need sun heat to perfect them. The cretins of the dark Alpine valleys go to prove the same point.

It is marvelous how much freedom mankind can endure without hurting them. In fact, there seems to be something infinitely expansive in human souls, and if you confine tongues, pens or bodies in too close a place a fermentation is liable to occur which will blow up everything. The greatest safety then seems to be not to have too much law outside of people but more in the interior of them.

In the snowy whiteness of the Arctic Zone people often get so much light that they have no light at all; in other words they become blind. People with weak eyes in too bright a glare should *blue* out the light with blue spectacles.

Some persons are more pious than Christ was, for he was in the habit at times of walking out in the air and sunlight on the Sabbath as he plucked and ate corn, but our modern ascetics would consider it more sacred to dwell in the close air of their homes.

A young fellow once said he came within one of getting married ; he asked a young lady if she would have him and she said no. On the contrary, I have known of many persons who came within one of attaining to a noble manhood, but were ruined by the opposite word ; friends asked them to take a glass of liquor and they said yes.

It is common to speak of the very wealthy as "the better class" or "the higher class," but the late revealments from England show that the extremely wealthy as well as the extremely poor are the lower classes of society, the higher class being between the two. The same is found to be true of other countries. When the millennium comes we are to have a high middle-class that will embrace all mankind.

When a person gets "tight" he generally gets very loose at the same time.

How many paradoxes there are in this world !

When Bishop Berkeley says there is no matter, it is no matter what he says ; and when Hume says there is no spirit he contradicts the whole spirit of the universe.

Soon life's river reaches the forever. This stream has two fountain-heads, one rising in heaven and one on earth. If it carry too much of the earthly into the next life its surface will become too much clouded to reflect the celestial harmony.

Walker says : "The Irish are never at peace except when they are at war, the Scotch are never at home except when they are abroad, and the English are never happy except when they are miserable." He should have added, the Americans are never at rest except when they are in motion. E. D. BABBITT.

GRACE VERNON BUSSELL.*

In the early part of December, 1876, the steamer *Georgette*, while on a voyage from Fremantle to Adelaide, was wrecked on the west coast of Australia, at a place about 180 miles from Fremantle. The wind was high, and the beach rocky and desolate. An attempt was made to land a boat, but it capsized. A second attempt was made ; the boat being freighted with women and children mainly, and, with a line attached to the steamer, was pushed off. But a short distance was made before the boat swamped, and its freight was thrown into the foaming water. At this moment, a young woman, on horseback, attended by a servant, appeared upon the crest of a rocky cliff which overhung the sea. To the sailors on the wreck it seemed impossible that a horse could descend from that height. But the girl hesitated not. She spurred her horse down into the surf and through the breakers, and made her way to the capsized boat. Then encouraging the almost drowned people, who were clinging to the boat, to take hold of her garments and horse-trappings as best they could, she turned toward the shore and safely landed them. Dashing again into the breakers, the girl brought others to land, and the line which had been cast off from the steamer. Leaving those who had been saved to attend to the rescue of those who remained on the wreck, this girl, wet and weary as she was, galloped more than eight miles to her father's house, and sent relief to the unfortunate sufferers. The Royal Humane Society of England awarded the brave girl a silver medallion.

See, on yon shoal amid the blast
A steamer rolls, and all aghast
The crew and passengers await a dreadful
death ;

Fierce billows beat upon the shore,
Remorseless winds with threat'ning roar
Appal the stoutest there ; the timid lose their
breath.

No help ! Whence, how, amid that storm,
Could help be given by mortal arm ?
Be sure the gen'rous venture could but fatal
be ;

Those jagged cliffs frown on the wreck,
Those angry waves sweep o'er the deck,
And hoarsely mock their trembling victims'
misery.

Women and tender children there
In huddled group the platform share,
And eager eyes strain out toward that brist-
ling coast.

Fear can not conquer Hope amain,
The sailor may despair to gain
The shore, but woman true will not count
all for lost.

"As well to perish on yon brink
As with this broken hulk to sink,"
The cry goes round ; the crew the jolly-boat
prepare—

* This poem was published in 1879 in *Woman's Words*, a monthly now not existing. The author has been requested several times to reprint it in the PHRENOLOGICAL JOURNAL.

Instant 'tis filled from bow to stern.
 "Push off!" Alas! the fierce winds churn
 The sea, and draw that fragile bark into its
 snare.

It rocks, it leaps; caught by the blast,
 'Mid shriek and prayer, a-beam is cast;
 The foaming billows dash among its living
 freight.

Those left upon the groaning ship
 With palsied tongue and blanched lip
 Gaze on the seeming foretaste of a common
 fate.

But see upon yon craggy height
 A rider, who with fiery might
 Spurs onward to the bristling edge a noble
 steed!

That guides yon lusty brute amid the deadly
 shoal.

A moment more the gallant steed
 Has reached the scene of direst need,
 Where aching arms the keel with desperate
 clutch embrace.

A moment more, and in her train
 There cling a dozen lives amain,
 And beachward press they all with slow yet
 certain pace.

They land. "Hurrah!" the cry is rung
 E'en from the weak and fainting tongue.
 It warms the heart of them who tread the
 stranded ship;
 Joy reigns where late despairing fear



"Ha! what is yond', my palfrey true?
 'Tis work indeed for me and you.
 Now falter not; push on! thither doth mercy
 lead."

But no, they dare not, can not pass
 Adown that frowning precipice?
 They dare! with eagle swoop they clear the
 dizzy hill,

Nor wind nor wave can daunt their course
 As through the breakers cleaves the horse,
 His iron limbs obedient to one master-will.

"Cheer up! hold fast! I'll soon be there,"
 A woman's voice rang loud and clear,
 And thrilled through every watching, tremb-
 ling soul.

All on the ship in wonder stand;
 Sure 'tis an angel's voice, an angel's hand

Spread thickly o'er his mantle drear—
 How sweet the prayer ascending high from
 grateful lip!

Back 'mid the surf the noble brute
 Hath sprung again in hot pursuit;
 Obedient to his rider still he braves the
 ocean's wrath.

"There's life to win." That rider pale
 Recks not the toil, she can not fail;
 And other struggling ones are borne in her
 foam-crested path.

Ah, see what skill a human arm
 Can straight employ where death would
 harm!

Learn what a human soul, aflame with pur-
 pose high,
 Can dare, though sea and sky array

Their awful powers to bar the way !
One steadfast heart may all their wrath
defy.

She saved them all, that maiden bold ;
Her name, her mission might have told :

Grace Vernon Bussell. Long and dear in
memory

Must her heroic deed remain ;
A hundred hearts, a holy fane,
Shall fitly keep its sweet and glorious his-
tory. H. S. DRAYTON.

A SOCIETY FOR MAIDEN LADIES.

THE Danes have a society unlike those of any other people we know. It is known as "The Maiden Assurance Society." Its aim is to provide for a class—single women of well-to-do families. It shelters and cares for them, and furnishes them with "pin-money." Its methods are thus described :

As soon as a girl child is born to him the father enrolls her name in a certain association and pays a certain sum, and thereafter a fixed sum to the society. When she has reached the age of—we believe—twenty-one, and is not married, she becomes entitled to a fixed income, and to a suite of apartments in a large building of the association, with gardens and park about it, inhabited by other young or older ladies who have thus become members.

If her father dies in her youth, and

she desires it, she has shelter in this building, and at a fixed time her own income. When she dies or marries, all this right to income lapses, and the money paid in swells the endowment of the association.

Her father may pay for twenty years, and then her marriage cuts off all advantage of the insurance. But this very chance must enable the company to charge lower annual premiums, and make the burden less on the father insuring. He has, any way, the pleasant feeling that his small annual payments are insuring his daughter's future, and giving her a comfortable home and income after he has gone.

It is obvious that the chances for marriage among a given number of women can be calculated as closely as those of death. The plan has worked well for generations in Copenhagen.

THE SCIENCE OF MIND.

When Fame's eternal monument
On Truth impregnable shall rise
For heroes who their lives have lent
To speed her course beneath the skies,
Some names that mortals failed to trace,
May find thereon a resting place.
For these in humble guise have wrought,
With patient hands and plodding feet,
For human souls ; regarding not
The taunts which faith and duty meet
Where truth is new and scorn elate
In presence of the truly great.
Not delving here mid fossils bare
While man a mystery remains ;
Not soaring skyward through the air
In fancy's dreams or zealot's trains ;
In deepest mysteries they plod
To prove the greatest gift of God.
From darkness thence evolving light,
From which rare beauties quickly glow,
They thread the mazes of the night
Where daring spirits come and go,
And trace the labyrinthian plan
That holds the mysteries of man.
With bloom of promise and delight,
This century-plant has upward sprung
From ages of perpetual night
To keep a world forever young,

With infinite themes, from early youth
Through the eternal years of truth.

To read in pure philosophy
The immortality of man
Was deemed impossible till he,
The pioneer of Heaven's plan,
Removed the veil that hid from all
The true philosophy of Gall.

The door of progress opens wide,
An avenue forever free,
Where sage and peasant, side by side,
Discern a true theosophy,
Transforming toil, and doubt, and night,
To rays of never-ending light.

Here Science greets the sons of men
With faith in Him who bore the cross,
Interpreting, by tongue or pen,
The heavenly gain of earthly loss
To those who trend earth's devious way
Beneath the burdens of the day.

My friend this is the Father's realm.
Where perfect love shall banish fear ;
No prejudice shall overwhelm
The friends of Truth who enter here,
Made glad by heavenly anthems, then,
Of "peace on earth, good will to men."

May 28, 1886.

MALBECCO.



BALDNESS OR ALOPECIA.

A BALD head is becoming more and more common, and seems to be a feature of modern civilization, one indication of the peculiar nervous activity that characterizes the times. In those centres of population where commercial enterprise and high intellectual culture are associated nearly one half of the men at forty are more or less bald, while a large proportion of women of like age, divested of artificial head-gear, would show scalps thinly supplied with that which the Scriptural writer terms their "glory". Some of our scientific observers predict that the time is not far distant when the English, German and American people will be generally bald-headed.

Want of hair on the head is due to the failure of blood supply or nutrition in the hair follicles, and this failure may be due to several causes. It may appear suddenly, as in an attack of typhoid fever, which often leaves the papillæ of the scalp so weakened that rapid baldness ensues. The papillæ, however, do not lose their vitality, and as the system regains its strength they quickly recover their function and the hair grows again.

Some skin diseases like acne, eczema, erysipelas, etc., may cause the hair to fall out temporarily or permanently. Anything that reduces the constitutional tone is likely to thin the hair. Women

who nurse their children often lose hair during the period of lactation, after which rest, good food and agreeable surroundings minister to a renewed growth of their hair as it does to their general health.

The baldness of age is not associated with any impairment of the vital powers. It is in most cases a hereditary peculiarity when it appears at the age of thirty-five or forty, but its development is usually gradual. The same cuticular reason is to be alleged for it as in other cases. The failure of nutrition becomes so complete that the hair-bulb wastes away entirely. Its capillaries have become obliterated, and even the follicle itself no longer constitutes a depression in the skin, and the scalp has the smooth and shining appearance so well known.

It is claimed that so long as the scalp contains a fair amount of fatty tissue baldness will not occur, and this is one reason that women do not lose their hair so early as men. On the sides and lower part of the head, where the muscular attachments are, there is more fat than on the crown, and there the hair is usually thick when the top of the head is entirely bare. If, then, it is loss of skin tissue that contributes to baldness any treatment that will preserve the normal consistency of the scalp will tend to preserve the hair. One of the earliest

symptoms of scalp, trouble that may lead to thinning of the hair, is a scaliness of the epidermis or the rapid formation of a bran-like substance that is commonly known as dandruff. And if proper measures be taken early in its development the disease, a form of pityriasis, may be cured and the hair growth invigorated.

TREATMENT.—Two principles may be said to apply in a proper endeavor to save one's hair when it is thinning rapidly, or to restore it when there is some hope of its recovery, although the skin is quite bare: 1. The adoption of such habits as will serve for the improvement of the health in general. More care should be bestowed upon the food eaten, and a due regard shown for temperance in business and social life. The high pressure under which people of the upper class in America live, the excessive nervous strain induced by our ceaseless mental and physical activity, is reflected through stomach and heart to the hair follicles and withers them.

2. The employment of such means as have a direct action upon the scalp. This should be carefully cleansed at certain times, and not permitted to become dry, rough and scurfy. All heating washes, alcoholic mixtures and rancid oils should be eschewed, as they impair the vitality of the skin. A persistent tendency of the skin to dryness may be relieved by rubbing in occasionally a very little fine olive or cocoanut oil, or a little almond oil.

The cleansing can be done by shampooing well, using a solution of pure vegetable-oil soap; castile or palm-oil is good. Cold water douches followed by brisk rubbing and brushing have a tonic effect upon the skin; the brushing should not be rude, but done carefully and with a soft brush, repeated three or four times a day. This stimulates the oil glands of the scalp, and when their function is normal, no external application of oils is required.

We do not advise the application of

irritating drugs and heating mixtures, although some authorities advise blistering with cantharides in the treatment of *alopecia areata*, a form of baldness which is characterized by the rather sudden appearance of one or more bald patches, which may spread slowly and lead to the entire loss of the hair. This is supposed by many to be due to a disturbance of the vaso-motor nerves in the locality of the baldness. In the outset of hair failure, due to disorder of the scalp, Dr. Wilson advises the application of a mixture of the following ingredients: Oil of sweet almonds, 1 oz.; liquor ammonia, 1 oz.; spirit of rosemary, 5 oz.; oil of lemon, 1 drachm. This may be used after the head has been washed.

The wearing of tight-fitting, unventilated hats is one of the great sources of failure of nutrition of the hair, and these must be avoided. The beard never falls out, because it gets plenty of sunlight and air. These are what the hair of the scalp needs, also. Women are less bald than men, because, for one reason, their scalps are better ventilated. In fine, civilization, not nature, has made the hair-producing organs of the scalp delicate and feeble, and if we wish to maintain a generous hairy covering we must nurse them so as to keep up their activity, otherwise they will decline and finally disappear.

H. S. D.

DRESSING OF WOUNDS.—Nature's method of protecting wounds is by the process of scabbing; and although almost a matter of routine in surgical practice to remove from a disfigured face or wounded head the crusts that Nature provides as adressing, it is best to leave such crusts undisturbed whenever possible, and if desirable simply to cover them with something better looking. Lint, or tarletan, or thin muslin, and collodion, forms one of the best dressings for simple incised, and not a few lacerated wounds, which have ever been devised.

A STRANGE ADVENTURE.

(CONCLUDED.)

A WAKENING the next morning I saw my pretty maid examining at arm's length a light blue robe of some soft, woolen material. "Is that for me?" I asked, with an emotion of pleased interest, a feeling to which I had long been a stranger. "Oh, are you awake? Yes, this is for you. Is it not lovely? Now for the bath." After bathing and dressing in the blue robe, made a walking length and somewhat after the manner of a modern "Mother Hubbard," trimmed with white lace and little bows of pink and blue ribbon, my breakfast appeared. I wondered if I should experience the delights of the evening previous. It was good. Oh, so good! I had an appetite, and ate with such relish that I forgot to notice till I had about finished whether I had experienced all the blissful sensations as before. I concluded I had not, but I felt as well satisfied. I asked Alethea why the difference. "This morning you have eaten with a natural appetite. Last night the Doctor stimulated the organs of taste and gave you an idea of the possibilities of our humanity."

"Now for our morning walk," said she, handing me a large garden hat of the style of the days of my youth; trimmed with blue satin ribbon, a white feather curled up on the brim, and long streamers down the back. I put it on and viewed myself in the mirror. I could not forbear laughing. I needed only a crook to complete the resemblance to a shepherdess of Arcadia. It was not an unbecoming costume, only to me it seemed odd and very romantic. Alethea donned a similar hat and we started. At the foot of the stairs we met the Doctor's wife and the three children, who were prepared to accompany us. The Doctor appearing just then, said: "Ah, good morning! You look better. How did you like your dinner last night?" "Like it!" I exclaimed, "it was heavenly. I never tasted anything so good in my life." "I think not," said he, smiling,

"and you never will again. It is not given to ordinary mortals to have more than one taste of the delights of Eden. If life were all like that we would wish never to leave this earth. Very few have your good fortune." Taking my hand and thereby giving me a thrill of pleasure, he said: "Now go for your walk. Breathe in life and health with every step. You have been ill all your life. You do not know what a wonderful thing health is, but you shall before long." Cautioning us not to stay too long or become over fatigued he turned, and we started forth.

A grove of trees near first attracted us. Seats were placed here and there and one or two hammocks depended from the branches. A little bubbling brook with a rustic bridge next appeared and we stopped to look into its cool shadows. Tiny fish disported themselves among the stones. The eldest child, a girl of ten, named Juliette, ran down to the water's edge and placed her hand therein. Presently one or two fishes came to investigate, and finding nothing formidable swam directly over her hand and rested there. "Look at the fish," I exclaimed, "they are resting on her hands!" "That is right," said the lady, "they know their friends."

Alethea had provided herself with a bit of bread, which she broke into the water. "The fish are my pets and they know when dinner is ready," she said, as a dozen little ones came forth from their hiding places and began nibbling at the crumbs. She stooped and, placing her hand under the crowd, raised two or three without disturbing the rest. The little fellows thus removed from their meal vigorously flopped back into the water and went on nibbling without the least sign of fear.

Pleasantly conversing we passed on over little hillocks and past moss-grown rocks; finding one that was especially inviting we seated ourselves thereon.

The second child, a boy of eight years, named Paul, and greatly resembling his father, took from his pockets a handful of nuts and sat quietly holding them. Presently a squirrel appeared, and after a few coquettish approaches and considerable chattering apparently gathered courage, hopped upon the boy's knee, seized a nut and began breaking the shell. Having finished that, to our great amusement he cocked his head on one side, looked up in the boy's face as if to learn whether it would do to be too familiar, then seized another and, with evident satisfaction, continued his meal. "How tame it is!" I exclaimed, "Is it your pet?" "Oh, no," answered he, "they are all just the same. Everything is tame here if you don't hurt it." "I don't understand," said I, "other squirrels seem afraid of man. Why is it?" "This property has been in possession of the family many years," answered his mother, "and nothing has ever been hurt since my husband's great-grandfather first laid out these grounds. Many generations of animals have experienced loving care from all who live here, and hence they have no fear of man." "How beautiful it all is!" said I, "Nature and man working so harmoniously together make it seem like Eden before the fall." "That is it exactly," said the lady, "we think it is possible to live on earth without sin or, at least, with a very small modicum.

"Eliminate all selfishness from our natures and how much of evil would there be left? Think the matter over carefully and see if there is any sin that can not be traced to that one root. Selfishness being the root of all evil, it stands to reason that if we do away with that we eradicate evil at the same time. Benevolence and love now join hands, and earth becomes a second Paradise. We try in our small and feeble way to make that the rule of our lives, and you see something of the result. Even the animals and birds feel the influence. Come, let us go through the meadow

and look at the cows feeding there."

As we approached the children started on a run for the calves, of which there were three, who advanced to meet them. In a few minutes there was a great frolic in progress, while the cows looked on complacently. One cow, who probably had no calf to look after, lay still upon the ground chewing the "cud of reflection," or, perhaps, something more satisfactory, whom "Baby," the three-year-old, spying, started for. Patting her for a moment, saying "Pitty cow," "pitty cow," she took seat upon her side. Being on an incline of course she fell down. Trying again and again, she at last succeeded in mounting her neck, where, by the aid of the horns, she kept her seat for a moment and crowed with delight. But alas! her elevation was short lived, for, losing her hold, she slipped down and rolled directly under the animal's nose. I gave a cry of fear, for I thought the babe would be hurt. Not so, however. The cow simply began licking the child's face and she, not relishing the tough tongue, rolled over and scrambled out of her way without a word. "This may seem natural to you," said I, "but to me it is very strange." "Yes, undoubtedly, for you have lived in the world. We are in the world, but not of it."

I was particularly struck with the perfect sympathy between mistress and maid; the deference and loving obedience on the one side, and the protecting and fostering care on the other. Alethea was not made to feel her position as a servant, but was treated as a younger sister, while the children showed her as much respect as they did their own mother, the consequence being perfect harmony between all, and loyalty unquestionable.

For two hours we roamed amid this beautiful scene, past the ornate cottages with their hospitably open doors, the grassy slopes, the wondrous beds of flowers, frequently meeting groups of ladies and children taking their morning walk, as we were, who, stopping to chat

a little, spoke as pleasantly to me, a stranger, as if I had lived there all my life and knew them well.

It was a memorable morning. Every thing was new and lovely. No discords of any kind. Nothing but harmony of sights and sounds, tranquility of soul and body—happiness complete. We reached home, and feeling a little fatigue Alethea bade me lie down and rest until she came for me, as I would that day take dinner with the family. I slept for several hours, when I was aroused by my maid, who proceeded to dress me in a flowing robe of white muslin, and at the sound of a tinkling bell was conducted to the dining room on the first floor. As I entered I was struck with surprise at the exquisite taste and skill manifested in the arrangements. Four windows draped with lace opened on a vine-covered porch, through which we had a view of the distant landscape. The walls were tinted in cool pearl color, while a deep border of red ornamented the upper part. The ceiling was painted in imitation of a lovely sky, with little cloudlets floating therein. The center of the table was ornamented with flowers, while a boutonnière lay beside each plate. The china, glass, cutlery, all were of a neat and graceful description, pleasing to the most refined sense.

The meal was conducted with no display of ostentatious ceremony, but in perfect order, the food being all that my meals taken while in my room could lead me to expect. The Doctor kept the conversation going merrily. The children now and then joined in freely, but respectfully. The boy especially was the object of my admiration.

His language and powers of comprehension were wonderful for a child, and his witty replies to his father's remarks kept us in a state of glee not unmixed with astonishment. We lingered for an hour over the repast, when we adjourned to the piazza, and for awhile chatted as gleefully as a party of children.

Presently the Doctor, taking my hand, said: "Two hours' rest and a short walk are the orders for this afternoon; you must be careful not to overtax yourself." Willingly I complied, for it seemed as if he anticipated my wishes. In the evening we had music in the parlor; and little Juliette fairly astonished me with her singing. The tones were clear, flute-like, strong and soft. Thus several days passed. I was gaining health and strength every moment, I felt perfectly well; my blood bounded in my veins, I was filled with joy and delight. Every moment of my time was directed by my kind friend who had found me perishing, and had taken pity on me—and now life, abounding life, thrilled through every nerve. My dismal forebodings, where were they? Dissipated like a fog before the genial rays of the sun.

One afternoon Alethea received instructions to take me to the "Lake." Until then I had not been aware there was any water in the neighborhood. A short walk through the woods and around a spur of the mountain, and we came full upon it; a body of water nearly a mile wide and fully three miles long. The lower side, where we stood, was an abrupt ending, but a little to the left it emptied itself over a bed of descending rocks, extending nearly the eighth of a mile and forming a series of cascades, finally flowing off bubbling and foaming through a defile cloven by the hand of nature. Entering a small row-boat moored by a landing Alethea took the oars, saying, "This hour shall be the happiest of all you have spent here." The banks were fringed by magnificent trees, climbing vines with their delicate branches swinging in the air, flowering shrubs and clusters of hazel bushes. Several turns in the lake gave us new prospects, each one seeming more beautiful than the others. Little coves or indentations, shadowed by tall trees gave us resting places where we could sit and gaze at the beautiful view. Occasionally a boat or two filled with

happy faces floated by, and the merry voices came like music over the water. Once we came suddenly upon a group of little children bathing; not one of them apparently over ten years of age. Dressed in white flannel closely fitting the body, leaving the limbs bare, they seemed more like water sprites than earthly children. They one and all swam, dived, floated, and tumbled about in the water in a perfectly fearless manner. They swam out to our boat bringing water lilies, and one of them caught a fish which he held up for inspection. I expressed my admiration of their ability, when one of them said, "Why, everybody swims; don't you?" With regret I confessed my ignorance of the art, and they looked at me with apparent surprise, and almost incredulity. At a word of command from Alethea they all began tumbling in the water, then forming a ring around the boat, each placing one hand on a neighbor, using the other, rapidly revolved around the boat several times, when, breaking loose, waved an adieu and darted off. I expressed my wonder at their proficiency and fearlessness, to which Alethea replied: "There is a true and false theory in swimming as in everything else. It is very easy when you once know how, and we teach them from infancy; every child over three years of age in this place can swim as well as these."

We floated on over the blue waters of that gem of a lake, past cottages with grassy slopes extending to the water's edge, past summer temples, past a little island with a pagoda-like building surrounded by beds of fragrant flowers, till we were within sight of the upper cascade, where the water comes tumbling down over immense rocks and boulders, tossing its foam high in the air to fall again like glittering diamonds. "Oh, this is lovely!" I exclaimed, "I have never seen anything so beautiful as this lake. I would like to live here forever." We rested on our oars for some time enjoying the scene, drinking in the beau-

ties of nature till my whole soul was filled to overflowing with happiness and gratitude for the great boon conferred upon us by the Author of all good.

We turned homeward. The current was with us, and we progressed rapidly. The sun was sinking toward the west. Bright colored clouds were filling the sky. Gold, crimson and purple lights were reflected in the water. The green fringed banks were brilliant in the sunset. The tall trees stood out distinctly marked against the golden back-ground. Gloriously brilliant color on all sides, changing every moment with every turn of the boat. I lay back against the cushions and gazed upon the scene in rapture, every nerve thrilling with delight while we floated with the current, scarcely speaking lest we should break the spell of enchantment. Brighter and brighter grew the red and gold, deeper and deeper the purple and green, till all earth seemed flooded with the wonderful glory. The lake was transformed into a pathway toward heaven, and Alethea an angel come to lead me thither. I was completely overcome with so much beauty. My soul was filled to overflowing, and tears started to my eyes. Alethea saw my emotion and with a few rapid strokes of the oars brought us to our landing. "You were right," said I, "this is the happiest hour I have spent here." "Yes, much too happy for you in your present state. It would not do for you to live so all your time. The sunlight must be tempered to the strength of the eye or it would be injurious."

Alethea fastened the boat and, taking my hand, said, "Now for a run, it will do you good and bring you back to earth." We started and ran rapidly for a distance, laughing heartily. The spirit of fun seemed to enter, and we frolicked and bounded over the grassy pathway like children. How merry we were, what jokes we made, how funny everything seemed, and how amused we were at ourselves. Reaching home, breathless, happy and full of life and vigor I

felt that I had never known happiness before. A light supper and a little music and Alethea called me to retire. I was enjoying myself, but to obey was happiness.

Tucking me nicely in bed she gave me a gentle kiss, saying, "Sleep soundly to-night, for to-morrow you leave." "Leave!" I exclaimed aghast—"Oh, must I go away?" and tears rushed to my eyes. I had been so happy that I had not thought of leaving, nor of home nor friends. The past had faded completely and I lived only in the present. What would they say to my story? How could they believe it? "Alethea," said I, "tell me something about this place, for really I know very little. What will the folks think at home? I've scarcely thought of them since I've been here."

"You are not to blame for that," said she, smiling. "But tell me something about it" I insisted, "I want to understand." "There is but little you are permitted to know" said she—"This property belongs to the Doctor, and has belonged to his family for generations. No one comes here save those selected by him, and only such as are by nature fitted to dwell here. There is no strife, except to see who shall be the kindest and best, the most helpful and patient. Each one has their appointed duty, with plenty of time for healthful recreation. The Doctor is in reality our ruler, and all strive to please him. He is at the same time our friend and brother. We go to him for everything we need, and he gives us freely. We raise enough to supply most of our wants, and the rest we have but to ask for. There is no sickness here except such as come by accidents, for he is a skillful physician and a touch of his hand gives life. The old die calmly and peacefully like fading flowers, and we are taught to regard death as a benefaction. We are secluded from the world, and our only care is to keep the knowledge of our paradise from outsiders. Your coming here was an ex-

ception, and now you understand why you have never been told the Doctor's name or the name of the place." As she spoke for the first time it struck me that I had never heard the name of the family. Of course, it was withheld for a reason I had no right to ask, and really felt no inclination, so deeply had I entered into the spirit of the place and people.

The next morning, on awakening, I saw beside my bed the dress I had worn on my arrival. I knew then I had to go, and I felt almost unhappy. Alethea came to dress me, and, after a breakfast with the family, who succeeded in making me cheerful despite my approaching departure, the Doctor, clasping my hand, said, "Come." In a moment I was docile and willing. Such power had his touch that I think no one could have resisted his will. We started to walk and the Doctor chatted merrily as we proceeded through the woods, across the babbling brook and onward till we came to the farmhouse. There we found a covered wagon awaiting us. The Doctor placed me on the back seat and again took his place with the driver. We arrived at the stopping place just in time to take the cars. The Doctor, making a swift downward pass with his hand, I at once became lethargic. That is, I sat quietly without thinking or noticing and conscious only of feeling happy.

Our return journey was much like the previous one. The Doctor busied himself reading the papers, and occasionally doing something to add to my comfort. And not until he had brought me to the threshold of the depot from whence he had taken me did he remove the spell of quietude he had cast over me. Then, clasping my hand in farewell, he said, "I saw you were dying of nervous prostration and I wanted to help you. I could not offer my services without giving an account of myself, which for many reasons I did not care to do. Your starting for V—— gave me the opportunity, and I resolved to seize it. You are now re-

stored to perfect health. Life is beautiful to you once more and will be for a long time. I ask only one thing in return. Should we ever meet, in the street or in company, do not point me out to others. It will be enough for us to recognize each other.

"I wish my home life to be undisturbed by outside influences. You have seen how happy we are and how innocent our lives. It can be kept so only by the greatest care and watchfulness. No element of discord must enter our Eden or all that we have striven to attain will be lost." He spoke earnestly, and I could only say, "I promise you faithfully that your secret shall be preserved." A parting pressure of the hand, a mutual "Good bye," and we separated, he stepping into a carriage that stood near and I into a car that passed my home.

When I entered my daughter with a glad cry of joy exclaimed: "Oh, mamma! I never saw you look so well in my life. The air of V—— has done you good, you are positively pretty—you dear, darling mamma! I felt a little worried that you did not write, but I knew your failing and so did not really expect to get a letter."

"But," said I, "I have not been to V——." "Not been there! Well,

where have you been?" Then I told her my adventure just as I have here related it. She looked incredulous, but could not understand my apparent health.

When my husband returned from business I told him the story. He was amazed and was going to investigate the whole thing. But when he came to find I knew nothing of the Doctor's name, or of the direction we had traveled, he saw how injudicious it would be for my sake, and how unkind to the man who, from the pure spirit of benevolence, had restored my health and freed me from life-long suffering even though he had taken a most extraordinary way of doing it.

Since that day I have never seen any of those good people, nor heard of them in any indirect way, although in passing the crowded streets I am always looking for the faces that I can never forget. I do not know whether any other person ever met with a similar experience, but this I know, whereas I was sick, now I am well; I was wretched, and now I am happy. I try to carry out the principles I saw there as well as I am able, and I know those around me are happier for my strange adventure.

S. E. SIEGEL.

BILIOUSNESS, WHAT IS IT?

IT is common for people to refer their ordinary stomach disorders to "biliousness," and they speak of having "too much" bile in the system, and take cathartic medicines or alkaline drinks to offset or counteract the supposed excess of bile. An article in *Good Health* treats the subject in a lucid style, as will be seen in the following extract:

Biliousness is a condition of the system in which there is too little bile produced, instead of too much. The waste elements, which ought to be removed from the blood by the liver in the form of bile, are left in the body, and accumulate in

the tissues. It is this that gives the dingy color to the white of the eye, the dirty hue to the skin, and the coppery taste to the mouth, and which produces the giddiness, the floating specks before the eyes, and the general feeling of languor and discomfort which characterizes the condition commonly known as biliousness. This dingy hue of the skin is actually due to the accumulation of waste matter, or organic dirt. The skin is dirty, perhaps not upon the surface, but all through its structure. Not only the skin, but the muscles are dirty. The brain and nerves are dirty. The whole

body is clogged with dead and poisonous particles which ought to have been promptly carried out of it, but have been retained on account of the inefficient action of the liver.

The causes of biliousness are various. One of the most frequent is overeating. If you press your fingers close up under the ribs on the right side of the body you can feel the lower border of the liver about an inch above the lower edge of the last rib. If you do the same after having eaten a hearty meal, you will find the lower border of the liver half an inch lower down. This is due to the fact that the liver becomes enlarged through the absorption of digested food after a meal has been taken. If you eat a very large meal, say twice as much as you usually eat, and then feel for the lower border, you will find it reaching down to a level with the lowest rib, showing that the liver is very greatly enlarged, much more than it should be. If you go on eating too much in this way, day after day and week after week, after a while the vessels of the liver will be so relaxed by frequent distensions that the organ will grow permanently enlarged and congested. When in this condition the liver can not make bile readily, and so does not do the proper amount of work, and the waste elements which it ought to remove from the body are left to accumulate in the tissues, and all the symptoms of biliousness follow.

Biliousness is sometimes the result of eating too freely of fats. Animal fats being particularly difficult to digest, and likely to be taken in too large quantities in the shape of butter, lard, suet, and fat meats, are apt to produce this condition.

Some years ago, a French physiologist fed two various animals liberal supplies of fat, and then observed the quantity of bile produced. He found that the amount of bile was lessened just in proportion to the amount of fat added to the food. In order to ascertain the reason for this result, he killed some

animals, after having fed them freely with fat, and examined their livers with a microscope. By this means he discovered that the little cells which chiefly compose the liver, and which form the bile, were crowded with little drops of fat, and were thus so burdened and hampered in their work that they were obliged to work very slowly, and hence produced only a small quantity of bile.

Similar experiments show that the excessive use of flesh food also renders the liver torpid, and produces biliousness. Flesh food generally consists of albumen, a nitrogenous substance, which can be used in the body only in a very limited amount. The average person can use only three ounces of this kind of material each twenty-four hours. But if a person eats several times this amount in the form of beefsteak, mutton chops, or any other flesh food, the superfluous amount must all be removed in the form of waste matter. That is, if the person eats meat sufficient to supply four ounces of nitrogenous matter, the extra ounce must be carried off by the kidneys in the form of urea, or uric acid, and this must be acted upon by the liver to prepare it for removal by the kidneys. If the liver has more of this work to do than it should have, the work will be imperfectly done, and much waste matter which ought to be removed will be left in the system, producing biliousness, rheumatism, muscular pains, sick headaches, and many other uncomfortable symptoms. Persons suffering from these causes will often notice sediment in the urinary secretion. This is one of the most common causes of the sediment, or deposit, ordinarily found in the urine.



ESQUIMAUX DIET.—A recent writer on Vegetarianism in England maintains that the diet of the Esquimaux is one of necessity rather than choice. These people, living the entire year in the frigid zone, are forced to procure their food more from the animal than the vegetable

kingdom, but their taste for vegetable food is always gratified whenever opportunity exists. "They eat as much as eight pounds of flesh meat at a meal," says Dr. Ray, "and they usually die of scrofula between thirty-five and forty-five years of age." In the spring they will

eat scurvy grass, wild turnips, wild oats, etc., while in autumn they find a few scattering blackberries, blueberries, cranberries, etc. It is stated that women who gather these fruits, and eat more of them than the men, live much longer in consequence.

COOKING WATER.

CHARLES DELMONICO used to say of the hot-water cure: "The Delmonicos were the first to recommend it to guests who complained of having no appetite. 'Take a cup of hot water and lemon, and you will feel better,' was the formula adopted." For this anti-anorexic remedy the caterers charged the price of a drink of their best liquors—twenty-five cents or more—and it certainly was a wiser way to spend small change than in alcohol. "Few people know how to cook water," Charles used to affirm. "The secret is in putting good, fresh water into a neat kettle, already quite warm, and setting the water to boiling quickly, and then taking it right off to use in tea, coffee, or other drinks, before it is spoiled. To let it steam and simmer and evaporate until the good water is all in the atmosphere, and the lime and iron and dregs left in the kettle—bah! that is what makes a good many people sick, and is worse than no water at all."

I am very glad to find such excellent authority on a question which has vexed me sorely, not only because of my own epicurean tastes, but because it was nearly impossible to obtain properly cooked water for invalids and convalescents. A critical taste will detect at the first mouthful, if the nose has not already demurred and given warning, the faintest trace of dead water in tea, coffee, porridge and many other items designed for the stomach.

More frequently than otherwise, the breakfast kettle is set boiling with a remnant of yesterday's supply in it; the coffee-urn has been neither washed, dried, sunned, nor aired; possibly, in the

interest of a rigid and mistaken economy, some of yesterday's coffee is also "boiled over," and the partakers wonder at their lassitude and dyspeptic conditions. Whatever else be neglected the tea-kettle and its associate pots should be thoroughly cleansed, dried and aired every day; and in no case should water that has stood even an hour in pitcher, pail or kettle be used for cooking.

If people will drink tea and coffee, let them at least have it as nearly free from poisonous conditions as possible. That much benefit may be derived by many people from drinking hot water is not disputed, but the water should be freshly drawn, quickly boiled in a clean and perfect vessel, and immediately used. The times of using, the adding of milk, mint, lemon, or other fruit juices, is a matter of preference or special prescription. This article has in view the perfect preparation of boiled or "cooked" water.

A LADY PHYSICIAN.

SALT IN CHOLERA.—Dr. Koch claims that the cholera bacillus will not live in the gastric juice where it has two per cent. of acid. The normal amount of hydrochloric acid in gastric juice is a little less by one or two-tenths per cent. In order to increase the amount of hydrochloric acid a liberal supply of salt should be taken. Direct experiments, however, have shown conclusively that salt instead of increasing the acid of the stomach has an opposite effect and reduces the amount below what is required for healthy digestion, and that the more salt the less acid.

BOYS WHO SMOKE.

A WRITER in the *Congregationalist* narrates an incident that illustrates a common phase of the smoking habit among boys:

Walking along one of the streets of Boston, last evening, we met two plainly-dressed boys carrying the basket of clothes which their mother had washed. One might be thirteen and one nine. Both were smoking. As we said, "Good evening, boys," they both put down the basket and took their cigars from their mouths.

"We have a boy about your age," addressing the elder, "and so we are fond of boys."

Their faces brightened at this.

"We should feel badly to have him smoke as you are doing, because we think it would weaken his mind and his body, and you know the mothers depend upon their boys for very much in this world. How much does your cigar cost you!"

"Three cents, and I smoke three a day."

"And that would make over thirty dollars a year, which would buy clothes or books. How long have you smoked?"

"Since I was eight, five years; and Tommy, who is nine, has smoked for a year."

"Does your father smoke?"—for if he has the habit there is little use for precept, usually.

"He is dead."

"And what does your mother say?"

"My mother," said the boy, with a downcast look, "she don't know I smoke."

A smoker for five years, carrying home the clothes she had worked hard to wash, deceiving her all the time, his conscience seemed touched. We patted the delicate-looking boy on the shoulder as we said, "Remember the talk we have had," and we went on, thinking, alas! of so many mothers "who don't know."

BITTERS AND DIGESTION.

OUR friends who are interested in the "bitters" of the druggists and medicine manufacturers will be instructed by the following results of experiments given by a writer in the *London Lancet*:

Dr. Cheltsoff, chief of Professor Botkin's clinic, thinks that extracts of the so-called "pure bitters," which are usually prescribed with the view to stimulating the secretion of the gastric juice and of aiding digestion, so far from having any beneficial effect of that kind, are absolutely injurious, inasmuch as they retard the digestive functions. He has made a series of experiments with extracts of aurantium, gentian, trifolium, absinthium, calumba, cascarilla, and quassia on (1) gastric digestion, and the secretion of gastric juice; (2) pancreatic digestion and the secretion of pancreatic juice; (3) the

secretion of bile; (4) fermentation; and (5) nitrogenous metamorphosis. The conclusions at which he arrived were that bitter extracts, even in small doses, interfere with artificial gastric digestion, and also the gastric digestions of animals, but not to so great an extent. Large doses of bitter extracts diminish the secretion of gastric juice, though small doses effect a slight and transitory increase of it, the digestive power of the fluid being, however, in all cases diminished. Bitter extracts have no effect on the secretion of pancreatic fluid, but they nevertheless retard hypogastric digestion. The action of bitter extracts on the secretion of bile is various; extract of absinthium, extract of trifolium, and large doses of extract of cetrain slightly increase it, usually at least, but not invariably; while extract of quassia, extract of calumba, and small doses of extract of cetrain, have no

effect at all. Bitter extracts have no anti-fermentative effect, and do not hinder suppuration. Lastly, assimilation of nitrogenous substances is diminished by the use of these extracts. (Probably on account of their astringent effects).

THE COST OF NECESSARY FOOD.

MR. EDWARD ATKINSON, an American writer of note, has been estimating what it would cost each individual for necessary food of sufficient variety per day and year; and also the value of the total amount of food upon which the people of the United States could subsist for that time. He makes it four billion, three hundred and forty million of dollars annually for the whole people; and for each individual, eighty-six dollars and eighty-one cents per year; and only twenty-three cents and eight mills per day for each person. He gives the following table:

	Cts. per day	Cost per year	Total for the U. S.
Meat, poultry, fish...	9.70	\$35 31	\$1,765,000,000
Dairy and eggs.....	5.60	20 38	1,019,000,000
Flour and meal.....	2.50	9 10	455,000,000
Vegetables.....	1.98	7 21	360,500,000
Sugar and syrup.....	1.94	7 06	353,000,000
Tea and coffee.....	1.02	3 71	185,500,000
Fruit, green and dry..	0.62	2 26	113,000,000
Salt, spice, ice, &c....	0.49	1 78	89,000,000
Total.....	20.85	\$86 81	\$4,040,000,000

The above figures were obtained by taking the actual cost of feeding seventeen adult men, most of whom were hard-working mechanics, and eight women, three being servants, for six

months in a Massachusetts town, and also that of the food eaten by seventy-two adult female factory operatives and eight servants in a Maryland town. It was assumed that the average of these two tables would be no more than a fair daily ration for all adults throughout the country. The cost of living in Maryland was less than three-fourths of that in Massachusetts—being 19.3-4 cents a day in the former and 28 cents in the latter.

If the estimates of this writer are correct, a man or woman in the United States who can adapt himself or herself to this calculation, may have a necessary supply of food at an average of about a quarter of a dollar a day. This would be, say one dollar and seventy cents per week and not far from ninety dollars a year. People, however, seem to think food alone insufficient for their needs. David A. Wells says they drink down nearly five hundred millions a year in the United States, and seem to grow dry on that, for the quantity consumed is continually increasing more rapidly than the population.

DANGER IN THE BICYCLE.

THE use of the bicycle as an aid to recreation is most fascinating, and the improvements that manufacturers are constantly making contribute toward the beauty and perfection of that instrument of locomotion. We can not wonder that our young men are so taken with it, but as every attractive form of out-door exercise has its dangerous side we are in duty bound to point it out, and warn society with regard to it. The *California Practitioner* sets the matter in a clear light when it says:

"The public is beginning to understand the danger of heart strain that comes to the student with the increased muscle and apparent vigor which result from the training for the college regatta.

"The disease which will be induced by the use of the bicycle will not be so well understood. The horseman, after his fortieth year, is apt to show symptoms of disease of the prostate gland. It is the result of the pressure of the saddle against the gland. The pressing and the jarring create an irritation, which passes

into a chronic congestion, then glandular hypertrophy, with mechanical obstruction to the free escape of urine, a bladder developing a chronic cystitis from the retained and decomposing fluid, a secondary kidney affection, and death. The extra risk of development of this line of disease to the horseman is well known. Yet the saddle which he uses affords quite a broad, secure seat. If one examines the saddle or seat of the bicycle, however, he finds a narrow support of only a few inches for the whole weight of the body. A wider saddle is not possible, as it would interfere with the free use of the feet on the pedals. The horseman, upon the broad saddle, has the additional advantage that the weight of the body rests principally upon the

firm tuberosities of the ischii, while with the bicyclist, owing to the narrowness of the saddle, the weight comes upon the perineum, and is transmitted directly to the prostate gland and base of the bladder. If the horseman develops a tendency beyond that of the average of men to trouble with the prostate and urinary organs, the habitual user of the bicycle must develop to a much more marked degree the same tendency."

But the excessive use of the bicycle may do more damage still, by weakening the action of the heart, inducing enlargement of that organ or of some of its arterial attachments, rendering the vessels of the leg varicose, and producing one form or another of muscular disease from overstrain.

NOTES IN SCIENCE AND INDUSTRY.

Aluminum, the metal of the Future!—Now a new metal is coming upon the field, which some claim will soon be all its own, and iron, heretofore without a peer, and the greatest factor of human progress, must step down and out. Aluminum, they say, can be hardened till the diamond is its only rival; it can be drawn into a wire so fine or hammered into sheets so thin that the gold-beater alone can do the work; the tensile strength of its wire rises to 100,000 pounds to the square inch of section; water and the atmosphere can not corrode it; it will burnish like polished silver, blows can not crystalize it, and its conductivity of heat surpasses that of copper. Then its alloy makes an anti-friction metal that goes beyond the power of brass or babbitt to produce.

Before such qualities as these iron pales into insignificance. But before we throw away our hammer and chisel or break our locomotives up, let us look at what has made iron the metal of the world. It is easily summed up in two words—"its cheapness." With crude iron at one cent a pound all things seem possible for it to accomplish, but multiply it by ten and all of our commonest conveniences will vanish like breath. Sixty years ago a drop of aluminum was produced in a German laboratory after a

research of fifty years with the best appliances of the time, and twenty years more were necessary to produce a larger bead. Then in ten years more the metal was on the market at \$32 per pound.

Since then chemistry has been struggling with the task, and by its constant efforts the price has dropped to \$15 for a pound, and now a new discoverer tells that it can be put upon the market at \$4 for the pound. We know the metal well, and the chemist has tried it in his laboratory; he has hammered and drawn, and melted and hardened, until every quality is known, but still the price must make it rare. It costs one-eighth the price of thirty years ago, and still it is 400 times the cost of iron. So it matters little that it stands third in quantity of all the substances of which the earth is formed, that it lies about us in every bed of clay, or shale, and that nearly every rock is but an ore bed with wondrous possibilities; so long as nature holds the secret key by which it can be unlocked and freed from the combination in which we find it, it can not take the place of iron. That this may come in time is not beyond the range of what can be regarded as a possibility, but it must come by slow and labored steps; meanwhile our iron will hold its own and be used as heretofore, while aluminum must be a laboratory

metal for a while, and get occasional application in the more expensive implements of science.—*Power.*

New Method of Testing Vibration in Plates.—At a recent meeting of the Berlin Physical Society, Herr C. Baur described experiments he had made with water-jets, which, issuing from a conically-pointed tube in parabolic curves, were acted upon by certain musical tones, so that, at some distance from the mouth of the tube, they showed a rotation, and that the jet, though broken up into drops behind the apex of the parabola, contracted into a continuous jet. The thinner the jet was the higher must be the tone toward which it was sensitive; the thicker the jet the deeper the tone. Herr Baur had instituted further experiments with water-jets, which he caused to fall on plates. Under certain circumstances there arose quite pure tones, which continued as long as the jet fell on the plate.

The experiments succeeded best with a Weissmann apparatus, when the jet issued under a pressure of 10 cm., the water flowing from a lateral opening of 4 mm. in diameter without a tube. Thin window-glass plates and metal plates, which, resting on pedestals, had free movement of vibration, were best suited for receiving plates. The tone was most certain of occurrence when the node lines of the plates were supported. In the jet itself appeared nodes and ventral segments at some distance from the opening. They were more distinct and regular at its middle; away in the direction of the plates they again became indistinct. If the metal plate and the water, acidified beforehand, were connected with a galvanic cell and a telephone, then no interruption of the current could be recognized during the time of the sounding. The contact of the water-jet with the plate must necessarily, therefore, be continuous. Herr Baur deemed this mode of excitation very well adapted to the purpose of studying the vibrations of plates.

Seeing the Invisible.—In a recent lecture on the "Solar Corona," by Prof. Wm. Huggins, published in *Popular Science Monthly*, the author says: "We live at the bottom of a deep ocean of air, and therefore every object outside the earth can be seen by us only as it looks when viewed through this great depth of air. Professor Langley has shown recently that the air mays, colors,

distorts, and therefore misleads and cheats us to an extent much greater than was supposed. Langley considers that the light and heat absorbed and scattered by the air and the particles of matter floating in it amount to no less than forty per cent. of the light falling upon it. In consequence of this want of transparency, and the presence of finely divided matter always more or less suspended in it, the air when the sun shines upon it, becomes itself a source of light. This illuminated aërial ocean necessarily conceals from us, by overpowering them, any sources of light less brilliant than itself which are in the heavens beyond. From this cause the stars are invisible at mid-day. This illuminated air also conceals from us certain surroundings and appendages of the sun, which become visible on the very rare occasions, when the moon, coming between us and the sun, cuts off the sun's light from the air where the eclipse is total, and so allows the observer to see the surroundings of the sun through the cone of unilluminated air which is in shadow. It is only when the aërial curtain of light is thus withdrawn that we can become spectators of what is taking place on the stage beyond. The magnificent scene never lasts more than a few minutes, for the moon passes and the curtain of light is again before us. On an average, once in two years this curtain of light is lifted for from three to six minutes. I need not say how difficult it is from these glimpses at long intervals, even to guess at the plot of the drama which is being played out about the sun."

Development of the Human Body in Childhood.—During the International Medical Conference held at Copenhagen, the Rev. Malling Hansen, Principal of the Danish Institution for the Deaf and Dumb, presented a paper which attracted considerable interest. It gave the daily results of weighing and measuring the 130 pupils (seventy-two boys and fifty-eight girls) of the institution during a period of three years. The facts demonstrated by these statistics were quite a surprise to the medical people in attendance. Since this preliminary notice, given in the summer of 1884, Mr. Hansen has continued his observations, and now believes himself able to furnish some outline of bodily development. Each child was weighed four times a day—in the morning, before dinner, after dinner, and in the evening; and was measured

once. These daily records show that, contrary to general opinion, the increase in weight and height of the human body during the years of growth does not progress evenly throughout the year. Three distinct periods were observed, and smaller variations were noticeable within these divisions. In bulk, the period of maximum increase extends from August to December. A period of equipoise then succeeds until the middle of April, and the following minimum period completes the year. The lasting increase in weight occurs during the first period; the period of equipoise adds about one-fourth of that increase, but this is almost entirely spent during the last period.

The increase in height shows a similar division into periods, but in a reverse order. In September and October a child grows only a fifth of what it did in June and July. Thus in the autumn and early winter a child increases in weight, while the height remains stationary. In the early summer, on the contrary, the weight changes but little, while the vital force and nourishment are directed towards an increase in height. This periodicity in the development of the body marks a strong similarity to plant development, and it is quite probable that further investigations would show another likeness in the fact that these results are good only for the latitude in which they were obtained. In a climate less variable than that of Denmark it is highly probable that the periods would be less marked, and in an even temperature would cease to be distinguishable.

Adulteration in Wine Making.

—The *Drug Reporter* talks plainly on this subject, and remarks: "Talks with various persons conversant with the subject have disclosed a lamentable lack of honesty in the preparation of medicinal wines and beverages. It is more the rule than the exception for port wine to be composed of cider, sirup, gum kino, and tartaric acid, and for claret to be made from a decoction of orris root, water, raspberry-juice, sirup, and cochineal, while most of the sherry wine on the market is a combination of cheap materials colored with alkanet root. The artificial coloring is said to be practiced with the object of heightening the tint of red wine deficient in color, making red wine white, or for coloring the counterfeit imitations. Rosaniline, elderberry, and logwood are among the coloring agents stated to be most frequently

employed. A great variety of methods have been devised for the detection of foreign coloring matters, but the majority are not of much practical value. To bring up "flat" wine a common practice is to drop a few rats into a cask, through the bung-hole; the rat flavor is said to be "perfectly delicious," but the sellers are careful not to sample it, leaving that "delightful" privilege for the innocent buyers. Much of the imported stuff is hardly suitable for the swill-tub, much less to be sold over the counter for patients and table use. Artificial wines are manufactured extensively, and sold either alone or in admixture with a certain proportion of genuine wine. A careful analysis and comparison of the results with those yielded by genuine wine of the same supposed character will often, though not always, suffice for the detection of the spurious article."

An Old Egyptian Studio.—The site of the ancient city of Zoan, spoken of in the Bible, and which Ezekiel prophesied would be destroyed by fire, has been found. The many interesting discoveries in connection with it add to our fund of Egyptian life and history. One curious feature is that of the house of an amateur artist of the ancient world, whose studio has been examined and it is found that he was as choicer of his implements as modern dabblers in the fine arts always are. He had a very fine palette of limestone ground perfectly smooth with twelve little depressions to hold his colors. These he used only in a liquid state. His palette knife was made of silver, highly decorated by engraving, and the little jars to hold his paints were of the finest glazed ware.

The specimens of his own work are very poor, while his collection of bric-a-brac, including bronze figures, glazed pottery of various makes, and delicate glass objects of different sorts, was very fine. He owned a plano-convex lens, and he had almost the only specimen of ancient painted glass yet discovered. In fact, an artist's studio of olden time seems to have resembled an artist's studio of the present day in this at least, that the more show was made the less real work was done.

A Lesson in Pronunciation.—

The following words are often mispronounced. Let the pupils look them out in

the dictionary, and fix the right sound and accent and write them on the blackboard: Usually, zoology, yolk, virago, interesting, turbine, tour, trow, tiara, thyme, telegraphy, tassel, suit, strata, soot, sonnet, soiree, salmon, romance, robust, repartee, raspberry, pristine, radish, route, rapine, prairie, polonaise, plateau, pianist, piano-forte, orang-outang, orion, orchestra, nausea, naivette, mogul, libertine, leisure, jaguar, genuine, heinous, height, giraffe, ghoul, European, encore, ducat, dishabille, Marmora, Mount Cenis, Milan, Moscow, Port Said, Pompeii, Ivry, Messina, Cairo, Bombay, Torquay.

Curious Intergrafting.—In Germany, Strasburger, has successfully grafted stramonium species, common tobacco, henbane, atropia belladonna and petunia upon the common potato plant. The most remarkable result is that, when datura stramonium was grafted upon a potato plant, the normal-appearing potatoes borne by the

latter were found to be impregnated with atropine. It is not stated, however, whether the tobacco grafts infected the tubers with nicotine. Tschudy had already grafted the tomato upon the potato, producing potatoes from the bottom and tomatoes from the top of the same plant.

Size of an Atom.—We are reaching down so low in observation of the constituents of matter that some idea of the size of an atom is within our reach. Sir William Thomson has recently calculated that the average size of a chemical atom is not less than six and not greater than sixty billionths of a cubic inch. It has also been calculated that in a cubic inch of air there are three hundred quintillions of atoms. Hence the cubic inch of air is by no means full, and it is possible for them to move eighteen miles a minute and collide against each other 8,500,000 times a second, as has also been calculated that they do.



FOWLER & WELLS COMPANY, *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
SEPTEMBER, 1886.

THE INVESTIGATION OF PSYCHICAL PHENOMENA.

As far back as our records reach—perhaps, as Mr. Spencer thinks, from the childhood of our race—a belief in the existence of invisible and, on physical grounds, unexplainable beings and modes of action has existed in human society. Sometimes this belief has dominated a larger, sometimes a smaller portion of mankind, and the attitude of the intelligent classes toward it has cor-

respondingly varied. In our own day this belief not only exists, but it influences a far greater number of persons than the chance observer supposes.

Of late years the effects of this belief in supersensible beings and influences have shown themselves in many ways and places, particularly in Great Britain and America. We have heard of numberless clairvoyants, spiritualists, mesmerizers, and mind-readers. The nineteenth-century scientist has hitherto found no leisure to investigate the many remarkable occurrences that, from time to time, have been spoken and written of; or, if he has had the leisure, he has spurned the reports of these occurrences as beneath his notice as an educated and well-balanced man. Nevertheless, the fact that such occurrences as we refer to, numerous instances of which are familiar to every one, have been allowed to pass uninvestigated, has been a standing reproach to true science. Science prides itself on dealing with phenomena of any kind whatsoever, without fear or favor. And these occurrences, and the belief of which many intelligent men and women

hold in reference to them, are certainly phenomena. Grant, for the sake of argument, that the occurrences are fictitious and fraudulent, the belief in them remains as a phenomenon in human nature. Instances of this form part of our experience quite as truly, if not so frequently, as the sensations of heat and light do. If they are false, let us know the fact on demonstrable grounds; if true, let us know how and why. At all events, we must have scientific knowledge concerning them.

Thus candidly a writer in the *Popular Science Monthly* treats of this conspicuous topic. Why should so many of our scientific men look askance when the term spiritualism is mentioned, and treat any question that may be asked concerning it with contempt? The very fact that a million of people in this country believe more or less in spirit phenomena should compel some attention to them, and the grounds of belief should be investigated until conclusions are reached that shall at least settle our uncertainty as to whether there is a basis of the supernatural in the phenomena, or prove that trickery, imposture, human credulity, physical and mental conditions, hysteria, insanity, etc., have woven the fabric of an extended and powerful delusion. The London Society for Psychical Research—after a rather prolonged examination of a great mass of testimony relating to the phantasms of the dead—confesses that there is some warrant for the belief of many in spirit appearance. Out of many hundreds of cases submitted for examination a score were found that stood the crucial tests that resolved most of the others into mere figments of imagination or stories that have grown

in passing from lip to lip like the famous “Three Black Crows.”

We have been waiting to hear from the society that was formed in Boston last year. The silence of those gentlemen, who commenced their meetings with so much apparent enthusiasm, is ominous. Have they run against an adamant wall of the “unaccountable” in the very outset, and given up all further attempts? If so, let us have their report. If they decide that “there’s something in it,” we shall, at least, feel that a part of the curtain has been withdrawn, and the subject is less doubtful than it had so long been to us.

This matter of psychic phenomena is of far deeper interest to the world than experimenting with ethylics, or coal-tar residua, or the discovery of bacteria and micrococci, and the scientific observer who will penetrate to the bottom of it and reveal its nature will reap immortal fame.

AN OUTSIDE VIEW OF CIVILIZATION.

WE were sauntering leisurely through one of our business streets, reflecting upon the marvelous activity of human intelligence in this, our day. The bustle of commercial enterprise that surrounded us quickened our potencies of mental association, and there passed before our internal eye a procession of great events and accomplishments in science and art which elevated our feelings to a degree of enthusiasm quite unusual. “Think,” we exclaimed in mental soliloquy, “of the magical telephone, of the ocean telegraph, of the Brooklyn bridge, of the cholera bacillus, of the store parcel-carrier, of the discovery of

saccharine, of the bicycle, of the———"Look out there!" was suddenly shouted by somebody, and we looked up in time to save ourselves from violent collision with an express wagon that was being driven at a furious pace.

Recovering from the slight shock to our brain centre of Cautiousness we again took up the parable with "How much these great carrying companies have done toward the spread of modern intelligence, bringing as they have by dauntless and indefatigable effort remote places into easy and frequent communication with the commercial foci! When it is remembered that the Adams, Wells, Fargo & Co., the United States, the——

"Duck, old feller, duck!" We unconsciously ducked, and, looking back, were impressed that we had escaped a traumatic headache, for a burly cartman, standing on his truck, was employed in transferring a load of wrapping paper from the truck to a store, and was pitching the solidly-packed creams over the side-walk to a porter who stood in the door-way. A flush of momentary indignation must have been on our face when we turned around, for the man in the door-way said with a laugh, "A close miss, Mister—you'd better be lookin' where you're goin' next time."

"Just so," we articulated mechanically, and passed on. We had received a fresh suggestion, and we philosophized on the varied uses of paper in the multiform industries of the world, and the immense stride taken when the pulp machine introduced the possibilities of a cheap and beautiful substance

for the printing press and the ready pen. "Yes," we reflected, "what would the world do now were it dependent upon the ancient reed for its writing material? The produce of a hundred mills would scarcely——Faugh!" our walk and thought were brought to a summary halt by a cloud of coal ashes that filled nose and eyes and changed our dark coat to a light gray. Two men in charge of a cart labelled Dep. S. C. had just dumped a barrel of ashes and litter into the cart, in the heedless manner of men accustomed to such public service, and a whiff of breeze had taken up a considerable quantity of the loose rubbish and scattered it about, to the confusion and anger of several persons including ourself, who happened to be near. Well, the careful use of our handkerchief about our face and its energetic application to our dress restored the previous integrity of our *tout ensemble* and we went on, this time our reflections being a little mixed with discontent, yet the main theme with which our thought at first had started held a *quasi* ascendancy, and inclined us to attribute the disagreeable in human operations to the great difficulty in finding sufficient and systematic means for carrying into practical effect the plans of private and public economy. "The day will come," we iterated with mental emphasis, "when all these mighty forces in the life social and individual will have their counterpart in a working machinery of perfect adaptation, and with these results will appear that"——

"Blag your boots, Mister? Shine 'em up? On'y five cents, Mister?"

Stopping again in our course, we scrutinized the little tatterdemalion who had dared to accost us and interrupt our mute affectation of Solonic wisdom. Our momentary hesitation was a sufficient promise of a job; the professional box was at once set upon the sidewalk, and before we could articulate a protest our right foot was lifted and placed in position, and the brush was flourishing around our ankles.

Having gone so far we deemed it a graceful act on our part to submit to the cheap operation, although we had supposed our shoes already in respectable order. As we looked down on the little fellow plying his trade with so much intelligence and speed we could not help a little speculation upon the value of his services to modern society, and what a vast number of dirty shoes and boots would go uncleansed and unpolished were he not a conspicuous feature of our metropolitan civilization. Having finished one foot he tapped on the toe of the other, and, in response, we were about to make the required exchange when there was a loud cry of "Mad dog!" Looking around, we saw, a little way back, running in the middle of the sidewalk and heading directly for us, a miserable wretch of a dog.

"Run, Mister!" shouted the boot-black, picking up box, blacking and brushes with incredible speed and making off, while we turned and made our way with more haste than dignity into the nearest warehouse, whose clerks, gathered at the door by the cry, kindly made room for our entrance. We noticed that the sidewalks on both sides of the street, that a moment before had

been filled with busy porters, cartmen, clerks and pedestrians, had become vacant; the porters had retreated into their stores, the cartmen had generally betaken themselves to the elevated security of their carts and trucks, and the clerks and others had all sought places of safety nearest at hand. Along came the poor dog, forty feet behind him two policemen flourishing their clubs, and close behind them a motley rabble of boys and idle men, all running and shouting "Mad dog!" At the next corner the hunted brute turned down toward the river, the noisy crew soon disappeared with him, and a moment later the bustle of work was in full tide as before. We looked for our little champion of the brush to finish his job, but in vain; he had disappeared around the corner with the rabble following in the wake of the poor dog.



TWO INDICTMENTS *vs.* THE Y. M. C. A.

FIRST, BY THE CLERGY.

NOT long since we read some strictures penned by certain Presbyterian clergymen on the Young Men's Christian Associations, the burden of which was that these associations were encroaching upon the province of the "Church," and doing work that was properly that of the ordained minister. We were inclined while reading to indulge in certain ejaculations of surprise, that men esteeming themselves Christians, and claiming to be special workmen of the Great Preacher of righteousness and charity, should deny an institution of the highest value in social reform. We had supposed that the Y. M. C. A. was a powerful arm in modern Christian evangelization and

stood shoulder to shoulder with the "Church" societies. We had supposed, in fact, that the Y. M. C. A. was doing with efficiency what Christian ministers and Christian people rejoiced to see done, preaching the Gospel of the Master to young men, and by all proper means seeking to guide them in the way of truth and duty, or to reclaim them from ways of error and vice. We had been thinking that we knew a good deal about the spirit and purposes of the Y. M. C. A., because of a long time intimacy with many of its members, and because of personal services in connection with two or three branches, and we often thought of the New York and Brooklyn organizations with gratitude, because we knew of instances where they had done excellent and noble work.

Only a short time before we read those censorious paragraphs a minister had said to us: "I have been much concerned about my oldest boy, because he has been disposed to be somewhat wild in spite of all we could do; but now he has been drawn into the Y. M. C. A., and I am very much encouraged because he shows a real interest in what they are doing." Evidently that minister did not think the Y. M. C. A. out of the pale of the "Church" or encroaching on the *Church's* province, but rather doing in certain directions work that the "Church," as commonly represented by this or that sectarian organization, is not adequate to perform. We are inclined to suspect that the trouble with those Presbyterian clergymen is that the Y. M. C. A. does not subscribe to any denominational order; declines to be considered Presbyterian, Baptist, Methodist,

or anything having a special or exclusive relation in the world of religious sectarianism. The fact that society respects the Y. M. C. A., and is willing to support it in its generous, impartial work among poor and neglected young men, is probably another ground of displeasure in the minds of those zealous defenders of the partition wall between the "Church" and lay effort in Christian directions. Gentlemen of the ministry do not forget that it is your part to illustrate especially the faculties of Veneration, Benevolence and Spirituality, and to restrain Self-esteem, Approbativeness and Acquisitiveness.

SECOND, BY THE PEOPLE.

But our friends of the Y. M. C. A. we have somewhat of an indictment against you. While we are not slow to protest against those who would limit your field of usefulness, we can not withhold our speech when you are found limping in a matter of deepest concern to the very class you professedly aim to help, instruct and purify. We have now in mind the action of that conference of the Secretaries of Y. M. C. A.'s when it was voted that their organizations could not properly lend direct aid to the White Cross movement. We second the opinion of a prominent New York newspaper that "this decision seems inconsistent, for associations whose avowed purpose is to induce young men to lead the Christian life should apparently hold their members to the same strict rule of conduct that the White Cross pledge lays down. In other words ought not these associations to be a White Cross army for themselves and of necessity? Can a man violate the law of

purity and yet be a consistent member of a Y. M. C. A.? We do not see how it is possible?"

We doubt not that every earnest member of the Y. M. C. A. regards social purity to be one of the chief requisites of Christian character, and is thoroughly intolerant of that miserable plea for immorality which is sometimes heard in reputable quarters. An inquiry at head-

quarters will elicit the response that "Our Association" has no sympathy with any sentiment that inclines to excuse or palliate social impurity. This, the official in attendance will tell you in terms of emphasis. Then why this apparent coolness as shown by the Y. M. C. A. Secretaries? Gentlemen, will you please to explain, and remove what seems to us an unworthy imputation?

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should,

if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

GOD IN PHRENOLOGY.—J. W.—As we understand the bearing of Phrenological science it points to a superhuman power through such organs as Veneration and Faith. Rationally considered, the very endowment of man with sentiments of worship and psychical intuition imply an object for whom such sentiments are exercised. The savage in his ignorance erects an altar to a wooden image, or invokes supposed demons of the air, water or fire in obedience to the prompting of his spiritual nature. The intelligent white man looks up and acknowledges a great Overruler, invisible, yet mighty in the affairs of the universe. Spurzheim, who was exceedingly liberal in his religious views, yet an exceedingly devout man, says of Veneration: "My observations induce me to consider its special faculty as the sentiment of reverence in general without determining either the object to be revered, or the manner of reverence to be bestowed. By its agency man adores God, venerates saints, and respects persons and things. What indeed can be more natural than to venerate in any way the Being who is considered as the cause of all things?" If we know anything about the teaching of such men as Huxley, Tyndal, Spencer, Darwin and other like scientists, it has satisfied us

that they do not deny an overruling Power, but capability of demonstrating His existence and His nature. Mr. Spencer has a great deal to say concerning the Great Unknowable, and that in the spirit of an earnest, devout man. You will find passages in the writings of Mr. Darwin that show him to be no severe and gloomy atheist.

THE FUNCTION OF COLOR.—C. S. H.—It would appear that the recognition of color is a mental process, entirely separate from the optical part performed by the eye, and this process is fundamentally aided by the organ or centre specially constituted in the brain substance. An individual may have an eye that is perfect as an optical instrument, but if the color organ be defective he will not be able to discriminate between hues and tints. He will notice differences of intensity in light, that may be compared with the differences of light and shade in a black-and-white drawing or engraving; but that grateful perception of the nice adjustments of coloring that is the property of an unimpaired organ of Color when contemplating a fine painting can not be his.

FRECKLES.—W. M. M.—Be careful in your eating: select articles that are nutritious and readily digest, and avoid fat, greasy meats and highly seasoned sauces. Wash the skin well—using good soap, and do not expose yourself to cold, rough winds. We believe more in the efficacy of natural treatment for freckles, acne and other disagreeable blotches on the skin, than in drug applications, as the caustic and desquamative effect of the latter is often painful, and causes but a temporary disappearance of the annoying marks.

BRAIN IN THE MAN AND WOMAN.—C. H. D.—You will find some discussion of this subject in recent treatises on physiology, and some authors, like Bastian and Broca, have discussed it, giving comparative measurements. In a good Cyclopaedia, under the head of Brain, you will glean data that may be of use.

To your second question, we would merely reply that "The History of Woman Suffrage," by Stanton, Anthony, etc., contains an abundant compilation of matter on the topic of woman's right to citizen representation.

DRINKING WATER AGAIN.—M. M. M.—It is better to drink a glass of water fully half an hour before going to the table than just

before, because the water dilutes the gastric fluid and delays its action, besides interfering, somewhat with the process of insalivating the food. A glass of water taken half an hour before breakfast is beneficial to the nerve tone of the œsophagus and stomach.

VARICOCELE.—S. A. D.—This affection by its very nature is distressing to one who has it. Like any other disease, it may be slight, but the tendency of dilated blood vessels, wherever situated, is to increase, unless measures be taken for their reduction. The sharp, shooting pains accompanying the tension of the veins in growing varicocele must be a drain upon the health of the sufferer, and cause, in time, much mental irritability. If you have any trouble of the kind, you should obtain good advice without delay.

CHARACTER IN HANDWRITING.—In answer to several inquiries, we may publish a book in the coming fall or winter, containing the articles that have appeared in the PHRENOLOGICAL, and also other matter relating to the subject of the indications of handwriting.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

Visions and Their Meaning.—**EDITOR OF PHRENOLOGICAL JOURNAL:**—I notice several letters in the JOURNAL lately about "Prophetic Dreams," and as I am one who believes in the truth, from whatever source it comes, I also feel like confirming it when I can. I have had such dreams for many years, some of them very vivid. My father was once sick when I was away from home, twelve miles, boarding and teaching. He rose from his bed a certain day and was able to eat with the family. That night I witnessed the act in my dreams, perfectly, and afterward saw him walking out of doors in the same way. I have had many such like visions, some of them much removed, in point of time and distance, from the real occurrence. But most of those dreams, or night visions, are figurative and require a very careful analysis before they can be understood. In general I have found that pleasant dreams mean success, and unpleasant dreams trouble or failure in any con-

templated enterprise or undertaking. And, by studying what was thus contemplated, I have interpreted dreams for myself and others very correctly. As Bliss says, to dream of snakes generally indicates foes. Their size indicates their power. If poisonous, enemies through evil intentions; if not poisonous, through ignorance.

To lose teeth appears to indicate that so many of my friends will forsake me. I was remarkably impressed with the truth of this by once dreaming of pulling a tooth and striking it back. Shortly after this I had a sharp argument with a friend, unintentionally insulted him and he wanted to fight, but I apologized so promptly that we remained friends. A wolf indicates one who would devour me financially.

Pure water in various forms is a symbol of truth in various forms. Impure or muddy water, a symbol of untruth and perhaps trouble therein. A flock or herd is a symbol of the church to which one belongs, or in which he is interested, considered as individuals, and the attendants symbols for the Elders, Deacons, etc.

I have found the figurative language and symbols of the Bible of great use in enabling me to understand these dreams. Phrenology has also greatly aided me in seeing how an animal of a certain predominating character would be a correct figure for a person in whom the same set of organs predominated.

As to the philosophy of this matter, I have no solution. I merely offer this suggestion: that it may be the influence of a higher power exciting the faculties of Human Nature, (through which the sight comes) Comparison (from which the figures flow), and Spirituality (causing belief in them), and similar in effect to a mesmerist when he excites certain faculties of his sensitive at will, while the power of the others remains at rest or latent, or comparatively so. Let us hear from others.

HENRY V. HANAN.

“Self-Control,” “Self-Esteem,” “Self-Confidence,” Which? — I am glad the question of revising the names of the organs has been raised. Thirty years of study, observation, and critical analysis of the human mind has convinced me that a revision or re-naming of some of the names of the organs is *imperatively* demanded, in order to scientific accuracy, and “the natural fitness of things.”

In the course of my study I have made, I think, some discoveries in the science.

One conclusion that I have reached, which many Phrenologists seem to have ignored or overlooked, is that the basis of each faculty of the mind, and the primary function thereof, is intuitive intelligence, a knowing, or intelligence-acquiring capacity. That this primary capacity is *active* and *aggressive* in its work of acquiring knowledge, instead of passive and impressible; and that, therefore, none of the faculties are mere blind impulses. For instance, Color cognizes the *element* of colors; Tune the element of music; Casuality the element of causation; Veneration and Spirituality cognize the existence of God, his Godhead or Goodhood, and Spirit-nature; Benevolence or Love, His love and Goodness; and the faculty of Power (now called Firmness) the element of power, both finite and infinite; the faculty of Conscience, or Conscientiousness) cognizes the element of right or wrong within the nature of man, and pertaining to all voluntary actions and mental motions; Amativeness cognizes the element of sexuality, and all that pertains to it, both mental and physical, in the nature of man.

It is thus that man is adapted to the material and spirit universe. There is, *there must be*, in the mental constitution of man, a faculty for each and every distinct element of the universe, like that of Time. Tune or music, cause and effect, etc., etc. And it is upon this basis only, that there *can be* any accurate, or truly scientific nomenclature of the faculties and organs. We must first discover the diverse and distinct elements of the “Self and not Self,” like that of color, order, time, tune, causation, in the material universe, and that of the infinite God, Spirit, etc., etc., in the spirit universe; and then the discovery of the mental faculty in man adapted by nature to the cognizance and love of said element follows as the necessary logical sequence. And now I am ready to ask, Is there such an element as “Self-Control,” requiring a faculty to be specially fitted and adapted thereto by nature? I think not. But “Self-Respect,” “Self-Esteem,” or “Self-Confidence,” is an element in every properly balanced mind. And, as to which of the above would best represent that element I confess to some difficulty in determining; but “Self-Control” seems to me to pertain to “*Power*,” “will-power” over one’s self,

and, therefore, not apt or appropriate as a name for the faculty which "esteems," or "respects," one's self. It is matter of fact that those who are deficient in the organ of "Self-Esteem" lack self-confidence; yet they are not wanting in the "Self-Control." One of New York's leading statesmen blasted his political prospects and stroyed his usefulness by a course of action forced upon him by his inordinately developed "Self-Esteem." In his case, there was an absence of all "Self-Control." Conviction of his own "Self-Importance" and *power*, so filled his mind, and *dominated* it, that he did not, or could not "see himself as others see him." And this is the universal—the inevitable effect of very large, that is, predominating "Self-Esteem," no matter how great the talent or ability otherwise may be. It blinds the mind of the possessor to his true status or condition.

Those who have very large "Power," or "will power," (now mis-named Firmness, for there is no such element as firmness, hence no need for such faculty), I admit are stable, firm and fixed in their habits and character; and those in whom the organ is deficient, the very reverse of this; but this is an *effect* of large or small Power, force, *power of action*, not of passion, resistance nor fixedness, as implied by the name Firmness. But this article is not intended as argumentatively convincing, but as suggestive only. I think the faculties "Conscientiousness," "Amativeness," and some others ought to be re-named; and that Hope and some others ought to be dropped entirely.

L. A. Wood.

The Christian Index, of Atlanta, Ga., says:—To the student of human nature, the perplexed parent, the earnest teacher, and the aggressive preacher the June number of the *Phrenological Journal* has a particular value; in fact every number contains invaluable hints and instruction for every day's using. While aggressive in its teachings, it is noticeable that there is no bigotry displayed, no "I am right, and all the rest of the world is wrong" in its columns. The arguments in favor of Phrenology, Hygiene, etc., are built after the model recommended by King Solomon.

PERSONAL.

SAMUEL J. TILDEN, one of New York's most honored citizens, died on Wednesday, August 4, at his home, Greystone, on the Hudson River. He was born March 15,

1814, of a parentage descended from early Saxon stock, and among the Puritan settlers of New England. He received his academic training at Yale and the New York University, being a graduate of the latter. Afterward studied law and early acquired a lucrative practice. An avowed Democrat, he took a warm interest in political affairs, and his ability as a manager soon gave him a leading place. When the citizens of New York exposed the corruption of the Tweed Ring Mr. Tilden joined in the attack upon it, and acquired more influence. In 1874 he was elected Governor of New York. The great event of Mr. Tilden's life was his candidacy for the Presidency in 1876, and the long contest to decide it, so close was the vote. Mr. Hayes being declared finally the successful candidate by a majority of one electoral vote.

FRANZ LISZT, the eminent musician, who died on the 31st of July last, was born at Szegozard, in Hungary, Oct. 22, 1811. His father possessed musical tastes and culture, and assiduously cultivated the gift which he recognized in his child. At nine years of age his skill in playing the pianoforte excited great astonishment. He went to Paris when fourteen years old, and was a great favorite in the French capital. In 1825 an opera of his was produced, but, being rather unfortunate with it, he turned his whole attention to the piano. His compositions raised the art of piano-playing away above anything it had ever attained before. In 1861 he was promoted to the rank of the Legion of Honor. April 25, 1865, he took clerical orders. Since then he devoted his attention mainly to religious music. He returned to Hungary in 1871, and received from the government a pension with a title. In August, 1884, the report was given out that the great composer had become blind through excessive use of brandy and tobacco, but the rumor was contradicted by an autograph letter of his own, saying he was not blind and was still able to work without difficulty.

DR. LEOPOLD VON RANKE died in Berlin, May 30th, full of years and honors, and after a long and painful illness most patiently borne. He celebrated his ninety-first birthday in December, last year. His famous "The Popes of Rome," a history that was a continuation of his "Princes and Peoples of Southern Europe," appeared in 1854, and gave Von Ranke place as a historian

and scholar of the first order. He leaves a son and two daughters. One of the latest communications from his pen was the letter read at the session of the American Historical Society in Washington last spring.



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

BIETIGHEIM, 12mo., pp. 172. Price, paper, 50 cents; Funk and Wagnalls, New York.

This curiously written book contains many things worth thinking of. The author is a man of culture and travel. He has used his eyes and his ears; he has measured men and analyzed their *sub rosa* purposes. Seeing that a warning lesson was needed by the good-natured, heedless mass, whose motto is always "Follow my leader," he has given the gist of his analysis of present causes and future effects, in the guise of three historical lectures, delivered at the "Denver Opera House in the winter of 1932-33." The history of the war of 1891-2 between imperial allies and republican allies, in which thousands of lives are sacrificed and millions of dollars expended, is most graphically detailed.

Reading it without reference to the dates, one is ready to accept it as veritable history, so well has the author planned his work and worked in the realistic incidents.

The thrust which communism receives in the unfolding of the plan and workings of Emanuel Winterhoff's "Universal Republic" is delivered with masterly skill, while the author, of course, takes the opportunity of his own making to deliver certain pet views of his own on political questions. The book is well worth a careful perusal by all good citizens to whom the problems of "Limiting Immigration," the "Treatment of Naturalized Citizens when Abroad," and "Communism" have suggested undesirable possibilities in the near future.

THE WISDOM AND ELOQUENCE OF DANIEL WEBSTER, Compiled by Callie L. Bonney 12mo, pp. 227. New York: John B. Alden.

What American does not welcome this compact volume, and thank the editor who has been so thoughtful of the needs of busy men in this busy age. The lawyer, the minister, the business man who would know something of the grand intellect that for many years held sway in the American Senate, would read some of those powerful thoughts that took deep root in our national policy, read them in the very words with which they were clothed, and that without searching through thick volumes of old historical record, has now at command a convenient book. Upward of two hundred extracts are given from Mr. Webster's public speeches, debates, legal arguments, diplomatic papers, and letters, many of the extracts being of considerable length and in all cases covering the topic considered sufficiently for the purpose of reference. Miss Bonney has certainly shown an excellent discrimination in her selections, and no partiality can be imputed to her except for the best specimens of the statesman's oratory and statesmanship. A portrait and full index add value to the compilation.

NEW TABERNACLE SERMONS. By T. De Witt Talmage, D.D., author of "Crumbs Swept Up," etc. 12mo., pp. 410, 8vo. Price \$1.50. New York: E. B. Treat.

It would be entirely superfluous for us to attempt any form of introduction to the reader of the preacher of the Brooklyn "Tabernacle." It is sufficient merely to say that in this well printed and well bound volume over thirty of Dr. Talmage's recent sermons are supplied for the use of those who would read him, if they cannot hear him. It is repeating opinion when we say that Dr. Talmage has a style of his own, that flashes with wit, is sharp with invective and brilliant with illustrations drawn from every source. His talk on the platform of his church always bristles with practical application. What occupies the attention of the public mind he makes his topic, and points out its harmful, vicious sides, or praises the good in it. Fashionable follies, social habits, movements in the world of business, questions of public policy, accidents and emergencies of general concern are seized upon and made to do duty in his vigorous presenting of truth. He is a bold man in discussing topics that most preachers fear to touch, and never minces matters. He likes to gather up facts and discharge them in a grand volley at the evil he attacks. He is enthusiastic, but it is the enthusiasm of belief in his work that inspires his earnest-

ness and carries conviction to his thronging hearers. In reading his sermons we read the character of the preacher, so freely and fully does he put himself into his words.

PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, Thirty-fourth meeting, held at Ann Arbor, Mich., August, 1886. The secretary, Mr. F. W. Putnam, has our thanks for this bulky compilation; in itself an expression of good editorial work.

CHRISTIAN THOUGHT, for July and August, has several well-written papers. The editor contributes "A Defence of the Superstitions of Science;" Rev. Dr. Butty, "The Apologetic Value of Paul's Beliefs;" Dr. A. H. Smith, "Evidences of Design from Anatomy and Physiology." "Embryology" and "About Books" have also an interest to the curious.

MANUAL OF BAPTIST MINISTERS' CONFERENCE, of New York and vicinity. This little pamphlet, handed to us by a friend, contains a brief sketch of the history of the Baptist Church in New York City and other items of use to members of that church, besides a catalogue of the Conference Library.

RUM—THE WORST ENEMY OF THE WORKING CLASSES, an eloquent sermon by T. De Witt Talmage, D.D., recently delivered. A good document for distribution. 12mo., pp. 16. Price, five cents, fifty cents per dozen. J. N. Stearns, publishing agent, New York.

The August number of LIPPINCOTT'S MONTHLY MAGAZINE is preëminently an out-of-doors number. It has a paper upon Gilbert White's "Natural History of Selborne;" a brilliant short story laid in Spain; new and pleasant chapters on the popular "Experience Meetings;" an article on the coming bankers' convention at Boston. Also a caustic attack upon Howell's new serial, "The Minister's Charge," and other subjects of current interest.

SHOPPELL'S MODERN HOUSES, Vol. 1, No 3. This number of a useful publication contains a view of a modern cottage, in colors, as a frontispiece. Fifty-five designs for residences costing from \$600 to \$18,000, with descriptive notes, and comments on methods of building. Within the same covers is a good translation from Viollet Le Duc's "Habitations of Man in all Ages," which is interesting and instructive. Quarto. Price \$1. Coöperative Building Plan Co., New York.

THE POPULAR SCIENCE MONTHLY, for August, supplies its readers with a fine portrait of the Swiss naturalist, Oswald Heer, and follows that with a good list of papers. "Woods and their Destructive Fungi," illustrated. "An Economic Study of Mexico," "Genius and Precocity," "Progress of Psychical Research," "Mineral Springs in Eastern France," "Prediction of

Natural Phenomena." The editorial on the "Church and State Education" contains much pertinent thought.

HARPER'S MAGAZINE, for August, illustrates Mr. Joseph Jefferson as Bob Acres, and gives an elaborate setting to Detroit. Orchids are also pictured and described. A notable series of sketches of "Transatlantic Captains" will please many readers who have "crossed seas." "Social Studies, II.," "Penalties of Authorship," and the Editor's Departments are interesting and more than usually full.

In the CENTURY, for August, we have "Algiers and its Suburbs," "Heidelberg," an appropriate description of the quaint old castle town, now that its university has just celebrated its fifth centennial, "Sea Birds at the Faroe Islands," "The Western Art Movement," "Lee at Fredericksburg," "The Battle of Fredericksburg," "Sumner's Right Division," "Franklin's Left Grand Division," and a variety of other topics besides the story departments. Century Co., New York.

CURRENT EXCHANGES RECEIVED.

The Dental Cosmos. Monthly. Record of Dental affairs. S. S. White Manuf'g Co., Philadelphia.

The Medical Brief. Journal of Practical Medicine. St. Louis and New York.

The Western Rural and American Stockman. Chicago.

Building. A journal of Architecture. Weekly. New York.

Book Chat. Monthly. Brentano Bros., New York.

Wallace's Monthly. Devoted to Domesticated Animal Nature. John Wallace, New York.

The American Inventor. J. S. Zerbe, Cincinnati.

Good Health. Battle Creek, Mich.

Magazine of Western History. Cleveland, O.

The Banker's Magazine and Statistical Register. A. S. Bolles, New York.

The Graphic. Illustrated. Weekly. Cincinnati.

Traveler's Railroad Guide. Railway and Steam Navigation. Monthly. Knickerbocker Guide Co., New York.

Cultivator and Country Gentleman. Luther Tucker & Son, Albany, N. Y.

American Agriculturist, July. O. Judd Co., New York.

Good Housekeeping: Weekly. Aims at that, we think, right earnestly. Holyoke, Mass.

The People's Health Journal. No affectation of technical stiltiness here. Chicago, Ill.

The Standard. Weekly. Religious. J. A. Smith, D. D., editor, Chicago.

Archives of Dentistry. Monthly. J. H. Chambers & Co., St. Louis, Mo.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 83. 1883.

[NUMBER 4.]

October, 1886.

[WHOLE No. 574.]



PHILLIPS BROOKS, D. D.

THIS gentleman has evidently an enormous development of the chest and it is to be presumed that the nutritive system, as a whole, is well developed, and

that he manufactures vitality enough for his great brain, so that it works with ease and vigor. He has, therefore, a grand development of the Vital tempera-

ment, which makes blood rapidly, and gives adequate support to the brain and nervous system. Life with him runs with a strong current.

His face indicates health, ardor, earnestness and facility of expression. His immense development of the perceptive organs gives great power to obtain knowledge, and enables him to command whatever he knows on a subject at the instant.

His head is very broad above the ears, showing great power and force of character, consequently, as a workman he would push whatever cause he undertook to forward, and as a thinker he would be clear, energetic and practical; his knowledge would come to the surface and be ready for utterance.

His Language is large, and his memory being excellent, he would be able to express himself with ease and uncommon fluency; he would make a grand extemporaneous speaker, and he would put the force which belongs to that broad head and strong body into the work he had in hand; hence as an orator he would be forcible. His feelings are keen, earnest and urgent. He has fine constructive talent, and large Ideality; hence, he has imagination, power to combine his thoughts and ideas, ability to use whatever of skill may be required in anything he has occasion to do: and then he evidently has very strong social power, which gives zeal and earnestness and enthusiasm to every effort of his mind and to every force of his character; in any of the walks of business, and especially as a soldier, this man would be brave as need be.

He should be known for individualism in thought and expression; is no imitator, but essentially original in almost every phase of action, whether mental or physical. Few men, especially ministers, have so much directness, earnestness, positiveness and force, and indicate such singleness of purpose. His mind is, as it were, focalized on the thought or duty which is before him;

hence his power must be felt wherever he aims it or exercises it.

The moral elements in his organism have a specific character in their very breadth, and appear to co-ordinate with his intellectual and propelling forces in a close degree, so that their expression is thoroughly practical and purposeful; there is, we believe, nothing in his methods that hints of uncertainty, indifference of view, or lack of motive.

Phillips Brooks, as his town's people prefer to call him, was born in Boston, on the 13th of December, 1835, of an old New England family. He was one of a family of six boys, four of whom have found place as honored clergymen of the Church. His parents were devoted and intelligent members of St. Paul's church, then a recent offshoot of the old parish of Trinity, and the boys grew up under the very remarkable influence of Dr. Alexander H. Vinton, at that time rector of St. Paul's.

Graduating first from the Latin school, and then from Harvard College in 1855, he has always retained a deep interest in its students. While feeling that his duty called him to decline its call to succeed Dr. Peabody as preacher to the university, he has tried to make himself a friend and his church a home to such of the students as cared to accept his hospitality. He preaches frequently at Cambridge, where the students hear him in large numbers.

Dr. Brooks received his theological training at the seminary at Alexandria, Virginia. He was called the same year of his ordination (1859) to the Church of the Advent, Philadelphia, as assistant to his old pastor, Dr. Vinton, and from there in 1862 went to his own parish of Holy Trinity, Philadelphia. He was very young for so severe a charge, but he sprang at once to the position of a famous preacher, and crowded congregations listened with delight to the eloquent simplicity and direct earnestness with which the young preacher presented the truths of the Gospel.

To the great grief of his congregation, the call to the old and important parish of Trinity, Boston, was accepted, and in 1870, at thirty-five years of age, he entered upon the work which has proved of such unique and telling influence upon Church life and general religious thought in that city.

The following analytical sketch of Dr. Brooks' style as an orator and of his character as a man is from the pen of an esteemed correspondent, who is a resident of Cambridge, Mass.:

There is not another such figure to be found in Boston as Phillips Brooks. Tall and well-proportioned, head and shoulders above other men, with a full, round face beaming with health and good nature, a broad forehead, an erect carriage of body with the head thrown a little backward, denoting strong vitality, he has the appearance of a giant, and for this reason alone hundreds would stop in their walk to look at him. The people of Boston regard him as an honor to their city and would make strong opposition to his removal. Twice has the opportunity been offered him to go elsewhere. The first was a call to the preacher-ship of Harvard College, his own Alma Mater; the second a call to the bishopric of Pennsylvania; both of which he felt it his duty to decline. In truth, Boston would sadly miss its popular preacher, for although there are many earnest, hard-working ministers in Boston there is not one who could fill so well the position occupied by Dr. Brooks. On all sides his talents and genius have been recognized. Men of all classes and creeds are willing to sit under his teaching, and his influence is felt among all denominations. Dr. Brooks recognizes every phase of Christian activity if it is earnest and helpful, and has always shown himself glad to preach the word of God in the churches or halls of Christian organizations different from his own. Acting in this broad spirit, Phillips Brooks has found his usefulness increased. Not only has his own congre-

gation received large increase from Congregational, Unitarian and other organizations, but members of every Christian body flock to hear him when he preaches in churches outside of Boston. It is this broad sympathy with every Christian effort so characteristic of Brooks, that has made him more popular than any other Episcopal minister. That church has many eloquent preachers; perhaps some more eloquent than the rector of Trinity Church, but they do not draw the crowds which Brooks can summon when he preaches in a strange city. It will be evident from this that he is no mere denominational preacher, one who conceives his mission to be the narrow one of trumpeting the honor and glory and doctrine of one small house among the many mansions which make up the kingdom of Christ upon earth, but one of those great preachers who arise in different periods of the world's history, like Chalmers and Wesley and Whitefield to show how great and wide the religion of Jesus is, how capable of embracing every son of man within its folds. In considering Dr. Brooks' qualities as a minister of the Gospel we deem it only fair and just to his fellow clergy and co-workers to show that Phillips Brooks' success arises from his great personal gifts. In no other way can we satisfactorily or impartially decide concerning his popularity without throwing disparagement on the earnest labors of his clerical brethren. It ought to be admitted as a self-evident truth that our Heavenly Father is ready and willing to impart to all his ministers the gifts of his inspiration and to crown their efforts in his cause with success. God withholds truth from no one. It is free to all who are able and willing to accept it. Neither is God a respecter of persons; he bountifully supplies all who labor in his vineyard with spiritual gifts. Why then do not all the clergy become great preachers like Phillips Brooks? Because all have not been born with the same natural endowments. That which consti-

tutes the difference between a great preacher and the ordinary zealous, hard-working minister, who fails to even keep his own congregation together, is not a difference in lack of zeal or heavenly favor, but of native ability, natural endowment; and it is far better to look at the subject from this stand-point than any other, for it would be unkind and unjust to say that the poor, struggling, self-sacrificing missionary failed to draw like Brooks or others because he was not zealous, or because the grace of God was not with him. Circumstance, the difficulty of the field cause more failures than lack of zeal or want of spiritual help from on High. Jesus recognized this fact, for his Apostles declare that their Master found many places where He could do nothing, because of the want of spiritual receptivity on the part of the people. And we find also that of the Apostles some were more popular than others, because some had greater natural abilities than others. St. Paul's constitutional make-up was different from St. Peter's and St. John's, and hence he drew around him those who admired his way of presenting spiritual truth. And there were many Christians who hated him and refused to be taught by him; some even thought that he perverted the truth of the Gospel, since he taught that the Gospel of Jesus was for all men, even the Gentiles.

It must be recognized that Phillips Brooks has many of the natural gifts of a great preacher. His temperament is oratorical. There is almost an equal blending of the vital, mental and motive systems; the vital is in the ascendancy. This combination gives to the speaker many excellent qualities. It charges the words and thoughts with vital and emotional energy. The rapidity which characterizes Phillips Brooks' delivery is the effect mainly of his excessive vitality. The very presence of an audience and his standing position excite the vital currents. He thinks more quickly and more energetically while standing than

when sitting. He is more powerful in his spoken words than in his written. Whenever he speaks great emotional susceptibility is developed. Especially those emotions which are characteristic of the vital temperament, the aggressive and sensitive, transcendental, anticipatory, exuberant and love emotions, buoy him up, and so stimulate his mind that thoughts and words and vital activity come too quick for utterance, and the result is that his delivery becomes so rapid that often his hearers can not follow him. Much of what he says is lost, and many of his admirers when asked what were the excellent points of his sermon are able only to give a few of its more common-place truths. Still no doubt there are many who admire this rapid delivery. It gives the impression of earnestness, of a man imbued and so spiritualized with the great truths which he utters, that he has no time to speak clearly and distinctly. Some are even captivated with this style; such is the frailty of humanity that even the very faults of a great man give delight. There are those who are so in love with their pastor that they would fain make him believe that what is a real defect in his delivery is a crowning virtue. It sounds so grand to hear a man driving on at that rapid rate, hardly taking time to breathe, giving the impression that he is uttering truth so instinct with life that there is not a moment to be lost in their enunciation: but it is very sad to know that many have gone away unfed, especially those who have not been favored with a front seat, and ask one another what did he say that excited him so much. It is unfortunate that Phillips Brooks did not fall in with a good elocutionist when he was a boy at school, one who could have shown him how to use his voice to greater advantage, and in a way more easy to himself and more capable of imparting the great truths of which he is possessed and for which all men thirst. No preacher should omit any drill or labor which will

make him more useful. A clearer articulation, a rounder and fuller voice with less guttural and aspirated quality, would not only increase the beauty of his delivery but would enable his hearers to follow his discourse more easily and carry its truths away with them, instead of having their attention distracted by his peculiar utterance. But not only is much of Dr. Brooks' discourse lost to his congregation on account of his rapid and often indistinct delivery, but it has an influence in the wrong direction upon students for the ministry. Such students, captivated by the great success of Brooks as a preacher, seek to imitate his style with the hope, perhaps, that they may be called young Brookses. Such imitations always fail because the imitators have not the great virtues of Brooks, which make his people blind to his defects. Such students should remember that Brooks has so many other oratorical gifts that he succeeds in spite of the imperfections. The defects in his enunciation are to some extent natural to him, and hence are in a great measure redeemable. They spring from his enormous vitality and propulsive force. He uses too much force at the beginning of the enunciation of his words, hence the aperture or outlet of his utterance is choked and narrowed instead of expanded. There are too many thoughts and words seeking expression at one time. He is like a bottle full of liquid turned up-side down; the opening of the bottle is too narrow to let the fluid pass through as rapidly as it crowds to the mouth; hence there is a succession of rapid, choked and intermittent sounds. Dr. Brooks could surmount these difficulties by holding under restraint his great vital and emotional fervor. There are times when the thunders of his eloquence has subsided, and when he is speaking calmly and in a lower key of voice that he is very expressive and easily understood. It would be well if he allowed himself to fall into that condition more often; it would break up the

continuous torrent of his rapid delivery which wearies because of its sameness.

But there are some excellencies in the earnestness and sympathy in his intonation; his voice is free from metallic and repulsive sounds. It has a richness and depth of resonance which pleases the ear and impresses the mind. His delivery is buoyant, exhilarating, hopeful, and confident. Indeed, it could hardly be otherwise, so great are his physical gifts. Another element in Brooks' success is his large intellectual and emotional developments. His head is large both in the observing and reflecting faculties. He not only gathers facts and ideas, but he can systematize and arrange them in order, originates others and clothe all, new and old, with the garb of originality. His head is broad rather than high, hence his conceptions are more noted for their width than their depth. His ideas are broad, they embrace the universe, he can see truth in everything. Outside of his own restricted circle, where certain class feelings in favor of aristocratic customs and methods tend to bias his judgment, because his education unfortunately has bent him that way, Dr. Brooks can take a broad and liberal stand. The Brooks by nature, as God made him, is a far grander specimen of humanity than the Brooks of social custom and narrow class education. Born in the affluence of wealth and social position he knows but little of the great battles being fought for very existence by those whom nature, or circumstance, or chance has placed in the humbler ranks of life. He had not to put forth a single effort to get his education. His college expenses were paid by his parents, and the way to books and instructors readily accessible. There was, therefore, nothing to stand in the way of his success as a student; he could gather knowledge on a bed of flowers and meditate on the great principles of Christianity in a hammock delightfully swaying to and fro in the gentle breezes of heaven. A small missionary enter-

prise, supported by a few ladies, caught the young ambitious Beecher and taught him the hard duties of ministerial life; but the young Brooks sprang at once into power and fame. A large church in Philadelphia received him as its pastor almost before he doffed the college gown. It is well to remember these circumstances in the life of Brooks, for to some extent they account for many of his narrow expressions and his evident sympathy with the more favored classes of society. Outside of these imperfections of character, which are more the result of aristocratic education than natural to him, Dr. Brooks has an intellect which is above narrowness and bigotry, an intellect that readily separates the spirit of truth from its hard-shell covering or its cast-iron presentation. He can see good in many of the old heresies which so distracted the ancient church, and he acknowledges the highest kind of Christianity is not theoretic, not a blind adherence to creed or dogma, but practical life and truthfulness in God. In all his preaching he presents Christ as the ideal or pattern of humanity after which we should frame our characters. His broad intellectuality also enables him to sympathize with those great movements in scholarship, art or social reform which have been too often neglected by ministers, because regarded as simply human efforts. These efforts of man after improvement Dr. Brooks regards as sacred and worthy of all the time a minister can devote to them; hence, whenever an opportunity is given, he is found addressing schools of learning.

Such are the general characteristics of his intellect. To go more into detail, he is a keen observer of men, and can make his sermons suit individual needs. In this he is aided by his vivid imagination. The circumstances and environments of his life were such that he could not learn much of the great issues and sufferings of life by actual experience, but his imagination can often very fully realize

such issues. He is, therefore, often able to startle his hearers by representations of scenes of life to which he has been an entire stranger. In the expression of his thoughts in words he is often eloquent. At times there is great verbosity and muddiness of expression, but his thoughts are so fully drawn out and so clearly illustrated by concrete examples that they make themselves felt even when the general construction is obscure. He has a great facility for repetition, the same thought kaleidoscope-like appears again and again in new and more fascinating colors. It is well that such is his style, for he would be well-nigh unintelligible on account of his rapid delivery, as it is, by his iteration, a great deal of what he says can be lost without impairing the thought.

He deals largely in comparisons, and many of his strokes of the identifying faculty are happy gems of genius. Although there is great intellectuality about Brooks' sermons, there is seldom any lack of interest on this account, for his large vital and emotional forces clothe his thoughts with power and grandeur. Such are some of his intellectual powers which help to make him great.

The situation of his church and the character of the members of his congregation have also much to do with his reputation. Pastor of one of the wealthiest churches in the city of Boston, situated in the most fashionable region, the Back-bay, he has a firm hold on the life and success of the metropolis. Whatever philanthropic movements he should chose to inaugurate he would find many ready to help him with money and influence. Then, again, his church was constructed at great cost and has all the worldly attractions of beauty of structure, artistic paintings and fascinating music. Thus favored by every circumstance that could elevate a preacher, a strong wealthy church, in a good situation, and himself possessed of rare talents, Brooks stands unrivaled in Boston as a

pulpit orator. He has every avenue open for doing good to his kind. The age needs just such men as he. Men of influence, men of station. If Brooks would espouse and herald any good cause to-morrow thousands would follow where he leads. He has every chance to prove himself a hero, a true follower of his divine Master who forsook every worldly position and gave all for humanity. The sad thoughts presses upon me as I bring this sketch of a great man to a close, a thought which the more I struggle to banish it still rises more vividly in my mind, until it thunders louder and louder and bursts into living expression. It is the thought of the tremendous issues which are still unsettled because no able leader has arisen to march them on to victory. These issues are the great temperance question, the reformation of our civil codes of laws, which, as they now exist, punish the poor and innocent because they have no money to purchase freedom until the law has found them guilty or innocent. Also, there must be found

a leader in the Christian field who will become the apostle of a new redemption from slavery as bad in its effects as negro-slavery—wage slavery. The labor question in the future will be as great and as important in its issues as any question which at any time has startled the sons of our universe. It will be well for Christianity if her great supporters, her eminent ministers, will find it their duty to do something to solve these difficult issues. How much good could a great popular preacher like Phillips Brooks do if he would champion some one of these great movements. Guthrie, and Chalmers, and Farrar, and Beecher have all been apostles of great philanthropic movements. Shall we see Dr. Brooks, backed by the wealth and aristocratic influence of Boston, some day not far distant leading on to success one or more of these great enterprises, or shall we behold him a self-satisfied pastor feeding the already well-fed sheep of Trinity with words and thoughts which stir the heart and please the intellect, but do not rouse the hearer into practical activity?

THE WEB OF LIFE.

A pitiful piece of patches and shreds—
But stay your passionate grieving—
Is it late to pick up the broken threads,
And change the pattern of weaving?

The warp was dyed in the wool and drawn
To the loom without your willing,—
But the shuttle that flies from dawn to
dawn
Carries the thread of your filling.

The fabric of Life by which you are known
Is not of your own free choosing,—
But the matter which gives it light and tone
Is the color you are using.

You are caught in a mystic web of Fate
Of a strange complex designing;
Still you may shift—blend—lay more straight
The threads you are intertwining.

Over the dingy, ancestral dyes,
Over and under, under and over,
The gold of your shuttle tints, as it flies,
The blemish it may not cover.

Vain with your hand on the beam to pause,
In your own work disbelieving,
For still by the force of its unseen laws
The Loom goes on a-weaving.

And your inmost thought is caught in the
snare—
Whether or no by your willing,
And your purpose, be it false or fair,
Shows in the web you are filling.

Well for you if at last, my friend,
When your shuttle shall fail and falter,
Another, beginning where you end,
Finds naught in the pattern to alter.

A. L. MUZZEY.

FAMILIAR TALKS WITH OUR YOUNG READERS.—NO. 10.

FIRMNESS.

"**H**E'S as obstinate as a mule. I can't do anything with him." How often I have heard this remark, and I do not doubt that you have heard it frequently, and it is very likely that the subjects of it were some of you. When a boy wants to have his own way, and can not be persuaded or coaxed or, perhaps, driven to do something else he gets the name of being stubborn and mulish, and unless he has a father



SENATOR VEST.

or mother who are able to see the reason for his disposition, and to treat him wisely he is likely to grow more and more wilful in his disregard of the wishes and opinions of others, especially if his Self-Esteem is strong; that is, if he considers himself a person of some importance in the world, and wants others to know it.

The foundation of obstinacy, or stubbornness, is an organ in the brain called Firmness, which is situated at the summit of the head. See No. 14 in the diagram given in our last talk. When it

is large it imparts height to the central part of the crown, and if the surrounding organs are but moderate in size the skull there may project upward quite in a peak. The portrait of Senator Vest being a side-view shows a marked development of Firmness. You may know that Mr. Vest is from the State of Missouri, where he became distinguished as a lawyer and debater. He looks for all the world like a man who has a strong will, and is bright and quick at seeing the point. His Firmness has helped him, you may believe, to climb up the ladder of fame. It is a very important help to us, whatever may be our place in life, if we wish to succeed, because it supplies determination, and so backs up our efforts. A boy may have a first-rate intellect and be given a good education, but if he lacks resolution and perseverance he will not accomplish what is expected of him. You know people who have had good opportunities and who are really talented; can talk well, write well, understand different languages, yet do not get ahead in life. Some of these are changeable, become discontented soon with anything that takes much time for its performance, and so don't half finish what they begin. Others are too generous, frank and sympathetic, or too much inclined to social diversion to carry out any settled plan or undertaking; their attention is easily drawn from their work, and consequently, is not done properly.

The lives of our really great men illustrate the power of Firmness. Through its influence upon other faculties of the mind, upon their intellect, upon their moral sentiments, upon their social feelings and upon their selfish and practical feelings, they went on step by step, gaining in capacity to do the work that was taken up by them or put upon them by society. You know the character of such men as Caesar, Socrates, Newton,

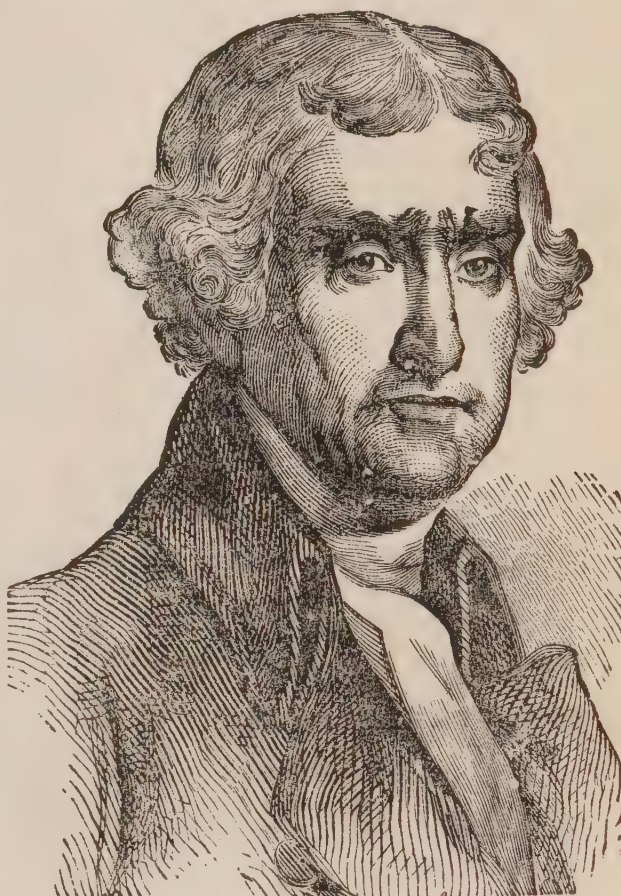
Luther, Columbus, Cromwell, John Howard, Washington, Jefferson, Lincoln, Bismarck, Livingstone, as it is set forth in what they did, and a careful study of the part taken by Firmness in the conduct of each of these would be an interesting and instructive study for you.

Take Columbus for a moment and see how persistently he sought to carry out his purpose of a voyage to find the Indies, the unknown country that he had reasoned out must exist somewhere to the west of Europe, or would be found if a ship sailed far enough on the Atlantic Ocean. In spite of the opposition and ridicule he met when applying for assistance to fit out his expedition; although Venice, Genoa, Portugal and the Spanish king rejected his appeals as vain, foolish, or visionary; although a poor man with little influence and few friends who could help him to approach the rich and great at Court, yet he was not to be put down or crushed. Had it not been for a woman, Queen Isabella, who was so deeply impressed by his lofty determination that she offered him money from her own kingdom of Castile, the Spanish crown would probably not have enjoyed the glory of America's discovery. You know that Columbus was on the eve of leaving Spain for France, to try his chances at Paris, when Isabella sent for him.

Think a little of the determination required by Howard and Livingstone to carry out their purposes of benevolence; of the personal hardships in foreign lands, the conflicts with enemies, the self-sacrifice prolonged for many years, and all that a wretched, unfortunate class of people, or races in darkness and subject to oppression and cruelty, might be benefited and brought into a better condition.

Without Firmness the character is weak, and a person can stand few trials. It is a sort of "seasoning" for the other mental faculties. Just mark its place there in the crown of the head, and you can not help thinking that it is very im-

portant. The Designer of our organism evidently intended it as a kind of linch-pin to the faculties, to hold them up to their special duties just as the linch-pin holds the axle of the forewheels to a wagon, so that the driver can turn and go in the direction he wishes. Then, too, the position of Firmness inclines me to think that it has a special relation to the moral organs, and is intended more particularly to make them active and strong in their influence, and so



THOMAS JEFFERSON.

render a person honest, respectful, kind, cheerful, trustful, careful, calm and dignified, by working with the faculties of Conscientiousness, Veneration, Benevolence, Hope, Faith, Cautiousness and Self-Esteem.

We admire a person who is resolutely kind, honest, cheerful, etc., because the character is a noble one, but when we meet a man who is persistently selfish, or quarrelsome, or cruel, always snarling and snapping like a vicious cur, or always insisting upon having his own way, or sullen and incorrigible like a

capricious donkey or balky horse, we soon dislike him and want to get out of his society.

You have met dogs that show the disposition of Firmness, they will persist in doing something in spite of coaxing and threats; cats, as a general thing, are very obstinate. We can see it in horses; some will show a steady and determined will in drawing a heavy wagon up hill and through bad places in the road, while others, when they come to a place

and inflexible in his rulings, and when he passes sentences, however severe, to do it with calmness. Sometimes a judge is forced to listen to appeals for mercy from friends of a convicted felon, and if he's a kind man it is hard for him to stand up against them. The picture of the woman supplicating for a change of the sentence which has just been given on the man who is led away by the officers, is an illustration of such a case. Mark the head of the judge and



JUDGE.—“I AM SORRY—BUT THE LAW MUST TAKE ITS COURSE.”

where a long continued strain is necessary, will hesitate and stop before they are half through.

When this faculty is well developed and works upon, say Conscientiousness, that has been called into exercise by some event, it helps one in keeping to the right, to carry out his sense of duty. The Catos I mentioned in our last talk must have had large Firmness as well as strong Conscientiousness. The judge who holds court wherein people are tried for crimes of all kinds, must have a high degree of Firmness to be decided

his bearing, and you will think that it would be useless to attempt to move him when his mind was made up, or when the jury had brought in a unanimous verdict of “guilty, in the first degree.” Such a judge would say that there was little for him to do besides passing the sentence of the law upon the prisoner; that was his duty and he could not help it.

When Firmness is very strong in a boy it almost always shows itself unpleasantly; he is obstinate, wilful, sullenly determined to have his own way. He is

not old enough to be reasonable and discreet in his conduct; his intellect is not



WILFUL BOY.

mature, and his selfish nature is active.

Such a boy as that in the picture has evidently brought himself into a bad

state through wilfulness, and quiet people look upon him as a nuisance. With the obstinate boy or man Firmness is like a tyrant, working with his lower animal nature and making it conspicuous in his conduct. A most desirable element thus becomes a source of annoyance, and if effort is not made to regulate its action the boy will be sure to grow into a very disagreeable, unbalanced man, who will be disliked by everybody. Study your Firmness, my young friends, and learn as much as you can about the action of a keystone in the fabric of your character.

EDITOR.

PRACTICAL USE OF PHRENOLOGY BY PARENTS.

WHAT shall I do with my child? is a question which comes to nearly every parent, and usually causes much perplexity. With minds full of hope that the child will be great, and that everything lies within its reach, there is a vague uncertainty and a sting of ambition that render a sensible decision almost impossible.

As a first step toward a solution of this question a Phrenological chart of the child's head is needed. This should be obtained within two years of the time the child learns to read, say at the age of eleven. If possible, the child should be sent in charge of some person, in no way related, with instructions to have the examination made without regard to any one's feelings. In other words, let the phrenologist feel that he is obliged to please no one. That all that is wanted is an exact statement of character and capabilities. Be sure to have the question asked "What can the child do?"

With a chart of this kind the parent will have some food for thought for several years to come. The child must be studied and care taken to discriminate between those incidentals of childhood, like a love for declamation and poetry, and the real indications of a natural in-

clination toward some particular branch of art or industry. Examine the chart and the family history. At what have parents, uncles, aunt and grand-parents been successful? Whose characteristics does the child inherit? Physically how does he compare with other children of his own age. Is he an improvement on his parents and grand parents physically or mentally? If he is not, he can not expect to exceed them to any great extent, except as his advantages and those of the age in which he lives are greater than theirs. If the father has a profession or trade and the child can be brought to follow it, great profit will accrue from such a course. Another thing should be considered which is too often overlooked. How much in after life can the parent aid the child in getting positions, in obtaining advancement or securing business? In what direction is the parent's influence strongest? To fight the battle of life unaided in these days of competition, schools, special instruction and large capital, is a waste of effort. As our country grows older methods of business are changing. People become more and more inclined to purchase from acquaintances and to employ those with whom they have ties of relationship or

business. This makes unaided effort less and less productive.

In these days of trade schools parents are inclined to look to them as an easy solution of the problem of education. The old proverb says that every man should have a trade, but before attempting to teach a boy the use of tools be sure that he is able to learn to handle them. The wise man will not waste time by putting the boy in the shop or trade school and answer the questions experimentally, but will ask the Phrenologist the question in advance. If it be answered affirmatively, and the child is destined for some mechanical pursuit, then by all means let the studies and reading be in that direction. The common school education will be of value, but if means can be found for something more practical the public school should be used for a short time only.

If a broad, large, projecting forehead, going straight up over the eyes, together with large Language, indicates that it is possible for the youngster to become a stenographer, and the chart says the same thing, then give as far as possible a liberal education. Almost anything in the way of information will be valuable. Half the young men in New York who apply for positions as stenographers fail because "they don't know anything." They do not have a sufficient amount of general intelligence to understand a business letter when they hear it. Their knowledge of stenography or short-hand is usually good enough for all practical purposes, but they are good for nothing because they haven't any cultivated brains.

While it is comparatively easy for a person to deal with those who have talents in some particular direction, the greatest difficulty is encountered with the child who has no particular or decided inclinations. He who "has the five talents," or he who has only one may be easily disposed of. The question is, what shall we do with him who has no talent but only a napkin in which one might

have been hidden? The son of a man of some property who had been sent by his father through the academy, college and finally through a post-graduate course, came to a friend and asked what he should do. At twenty-eight the world was before him. He was well up in all his classes at graduation, and was full of learning and knowledge. Questions showed that he had no taste or special love for teaching or for business; although a religious young man he was not inclined or "called" to preach, had not any special taste, and liked one thing as well as another. Three weeks later on learning that he had been accidentally drowned a sigh of relief came. Here was a man for whom the world had no place. He should have stayed at home, studied farming and become a useful part of commonplace country society. To such a person learning should be a luxury and indulged in as such, without making any attempt to earn his bread and butter by it.

When the Phrenologist says there are no particular aptitudes, and when physical, mental and hereditary traits are only ordinary, it is best, as a rule, to curb the ambition and undertake some work which is within reach. The old injunction to aim high, in ninety-nine cases out of the hundred, only wastes the arrow, and the marksman has the mortification which comes from hitting nothing.

Referring to family traits and the powers which come by inheritance, it is safe to say that no great man ever came from a family which had been conspicuously commonplace both mentally and physically. A careful and proper use of Phrenology will guard against undue and injurious ambition. On the other hand, it will prevent mistakes of the opposite kind. If any great powers are sleeping it will find them.

At the age of fifteen or sixteen a second chart may be obtained with advantage. It sometimes happens that childrens' heads and mental powers undergo changes of a marked character before they are twenty years old. As a

rule, the child is very exactly the father of the man, and the character which was accurate at eleven will be equally just at twenty-one.

The advice may be summed up in a few words. At an early age get a phrenologist to give an impartial account of the child's mental powers and capabilities.

If any marked tendencies or aptitudes be found, so educate the child that they will aid in its life work. Conform the life work to the natural inclinations if these are stronger than mere whims. If, as is more probable in the majority of cases, no special powers are found, take a sensible view of the matter and help the child to learn to do that kind of work which the world wants to pay the best price for, governing the selection according to the facilities at hand for turning out a good workman. Lastly, teach both boys and girls book-keeping, but don't allow one of them to adopt that as a profession. Even a special genius for accounts will scarcely raise the book-keeper above the level of a two-legged addition table.

The work itself is mentally destructive and, at the same time, wretchedly ill paid.

In selecting a trade it must be remembered that learning to run a machine is not, in general, learning the trade. The boy may be an expert in the use of a drill press or a lathe and not be a machinist. He may run a planing machine and be little more than a day laborer. When, however, he goes a step higher and can construct, repair or set up his own tools, when he rises above his machine, then he has a trade that is of some utility. The tool-maker stands on a higher plane than the man who simply runs the tools in the shop, inasmuch as the one has more use for his brains, and, in the end, the question is how much brain capital can the boy or girl be given, and how can they be rendered capable of doing work for which there is a market. When in any case this question has been answered, the problem has been solved successfully.

W. E. PARTRIDGE.

BOADICEA.

THE British Islanders at the beginning of the Christian era were rude and uncultivated. It is supposed that they came from Gaul, as France was formerly called, for their habits were similar to those of the people of that country at that time. Their religion, like themselves, was fierce and blood-thirsty, and they clung to it with extreme fervor. Their priests were called Druids, who surrounded their religious rites with awful mystery. They lived secluded in dense forests. Their temples consisted of huge stone pillars standing in a circle. A stone in the middle of this inclosure was used as an altar, on which it is supposed that human victims were at times sacrificed. The Romans, in the reign of Nero, made war on the ancient Britons, and believed that they had succeeded in conquering them, but as soon as the victorious Roman general,

Suetonius Paulinus, left their island Boadicea, the queen of the Iceni, rose in arms against the enemy. She was inspired by her religious zeal, by the memory of the indignities that the Roman tribunes had heaped upon the people, and by a natural aversion that a home ruler has to the encroachments of a foreign power. Her people gladly rallied to her standard. They were victorious over several Roman settlements, and London, the main seat of the ruthless intruders, was burned to the ground. In those barbaric times mercy was unknown, and seventy thousand Romans and strangers were slain. Suetonius returned to the provinces of the Britons, engaged in battle with them, completely routed the queen's army, and killed eighty thousand Britons.

Boadicea saw the dull light of the day close upon her altered fortunes. There

was no one to whom she could now turn for consolation. Her priests had been burned in the fires they had prepared for their enemies; not one of their consecrated groves and altars remained. What was left to soothe the heart of the conquered queen? The uninhabited rooms of her wooden palace echoed to her heavy tread. Sounds were now and then borne on the fast darkening air, more melancholy to her than the solemn gusts of wind that swept down through the chimneys of the rude fire-places. They were the shouts of her victorious enemies. They came nearer, nearer, and while Boadicea listened her face grew sterner and she resolved not to fall alive in the hands of her conquerors. She would drink of the poison she had a little while before prepared. Nearer and clearer came the voices of her victorious foe. The vanquished queen hesitated no longer. She raised the cup of poison to her lips and drank its fatal contents. When Suetonius broke into the palace with his armed warriors he found the Queen of the Iceni dead.

We need the light of Phrenology to see distinctly the characters of the dim and shadowy past. Boadicea was not beautiful. There was too little cultivation of the manners, mind and morals in her time for that. The prevailing idea of a God amongst her people was not calculated to fill their hearts with affection, confidence and gratitude toward a Supreme Being. Their emotion toward their god was one of abject fear, which the druids took care to keep active. These priests not only had the power of inflicting terrible penalties in this world, but they declared that they could cause the eternal transmigration of souls. It was not possible that an expression of sweet spiritual peace could rest on the countenances of persons whose best emotions were debasing fears. Their faces, therefore, were harsh and repulsive in aspect. Boadicea, being a queen, was surrounded by the best influences

of her barbarous country. Her manner was commanding, but her countenance wore the stern fixedness, and her voice had the same rude, coarse tones that belonged to her fierce subjects. Their sole education consisted in believing what the barbaric druids taught them without the liberty of using their own reason in anything. These Britons, in their intercourse, did not even put on the appearance of kindness and consideration for each other, which, hypocritical as it often may be, is yet calculated to tame the savage in man's nature, and aids him in desiring to be that which he sometimes almost unconsciously imitates, a refined and gentle human being. Boadicea could not claim to be this, but she was the best of her race in Britain, and, we may say, the last, for these Britons were never again known as a free and independent people.

Boadicea had all the virtues of her time. She had large Combateness, Inhabitiveness and Self-Esteem, which made her brave and liberty-loving. She was devoted to her home and her nation, while her large Veneration made her reverence her country's gods, and willing to fight and die in their defence.

A TRAVELER.

COMMON FAME.

A man was born, sang, suffered, loved and died.

Men scorned him living; let us praise him dead.

His life was brief and bitter, gently led And proudly, but with pure and blameless pride.

He wrought no wrong toward any; satisfied With love and labor, whence our souls are fed

With largess yet of living wine and bread. Come, let us praise him; here is naught to hide.

Make bare the poor dead secrets of his heart. Strip the stark-naked soul, that all may peer,

Spy, smirk, scoff, snap, snort, snivel, snarl and sneer;

Let none so sad, let none so sacred part Lie still for pity, rest unstirred for shame, But all be scanned of all men. This is fame.

A. C. W.

KATE GREENAWAY,

THE CHILDREN'S COSTUME ARTIST.

SUCCESS in any department of life to-day is to be won only by persevering industry by the young man or young woman who starts without the support of wealth or position. Art is a vocation very fascinating to the young who

when his pictures had become highly prized he enjoyed but a few years the fruits of long study and close application, as he died when scarcely more than fifty years old.

The English woman, whose expressive



have a leaning toward the tasteful and refined, and there are thousands of men and women who draw, sketch and paint, but how few are *artists* in the true sense of that term, and how few are able to earn a living by pencil or brush. An eminent painter once remarked to me that he had "worked like a common laborer the greater part of his life," and

face the reader has before him, has become well-known for her skill in a certain line of artistic design, but only after much study. A natural adaptation to the vocation led her to take it up, and a temperament unusually strong and an organization emotional, earnest and positive have been the backing to her effort.

A writer in the *Wide Awake* describes

Miss Greenaway's life and work in this way :

In London, Kate Greenaway lives—the artist whose pictures have made the whole world, that lies akin to the heart of a child, acknowledge the power of her genius. Her magic pencil has transformed even our American home mid-gets into the quaintest and loveliest of little antiques with their “Mother Hubbard” and “Greenaway” gowns, and their sailor and grand-father costumes. Her name is an household word ; her dictum as powerful as that of a court-designer ; her *modes* as closely followed in the world of fashion, and in the larger world without, that would be fashionable, as are those of a Worth.

A glimpse of her studio, a hint of her methods, just enough to make you wish for more will be given here. In speaking of it she said that each of her imaginative designs is wrought out by a hard, laborious process. She plans out all the little robes and quaint bonnets and funny old cloaks to the minutest detail of each bow and ribbon and band, and she smiled as she pointed to them hanging there around the studio wall, so motionless then, but soon to be alive again with charming curves and airy grace, when obedient to the little creatures within.

The little models have to be tied and buttoned and pinned into the quaint garments, to pose with many rests between ; but the artist, with tireless pen-

cil, must go over and over in dry drudgery, each line and curve, altering here, improvising there, spending hours upon one little detail, that the whole may be perfect. Is it any wonder that the inanimate figures seem to walk, to speak, to pirouette and masquerade all along the printed page?

I look up as I am writing to the quaint, tender, exquisite figure and face of a little child, as dainty a bit as ever called a child-worshipper to homage, my “Little Brown-Maiden.” She is my ideal of a certain demure grace, a sweet reserve, a childish questioning into the coming years, a gay abandon as regards all sorrow, present and to come. There she sits in a little, dull-brown gown, her hands in a big muff that, despite the weary body, shall be held with the air of a grown-up lady ; the big bonnet, with its large bow to one side ; the tired little shoes, creased and evidently dusty ; so tired, they are, nevertheless, placed exactly in dignified position as befits the little wearer's tone of mind.

We are no advocates of the light, variable, capricious changes of fashion, but one who aims to introduce utility, grace, comfort and beauty in combination through her designs, as Miss Greenaway's purpose has been from the first, deserves our approval, and that of all thoughtful people, especially as her work has a relation to the moral and physical well-being of thousands of our children.

GATHER UP THE FRAGMENTS.

“GATHER up the fragments, that nothing be lost.” I mean the fragments of time. There seems to be a common anxiety among men to become rich, and in feverish haste they join in the pursuit of money-making, giving their time to its acquirement. Although there could hardly be found one who willingly would have his stay on earth shortened by even so much as one year of his life, if, in exchange for it, he could

become rich as Croesus, yet “time is the stuff that life is made of.” How men do value this thing called time when considered by the bulk of a year or so, especially if it be the closing period of their sojourn upon earth ! but such fragments as the minutes and hours of every-day life are carelessly squandered.

There is a fable that an ancient king acquired the enormous wealth for which he was so celebrated from the golden

sands of a river which flowed through his kingdom. The flowing stream brought the particles of gold in grains and globules and flakes from the mountains above, and the servants of this king washed the sands and thus separated the heavier deposit of the metal. By collecting these fragments of gold an immense fortune was accumulated.

Do people think particles of time less valuable than particles of gold that they are not more careful to gather up the fragments? Spare moments, that have been called the "gold dust" of time, have in them treasures of wealth, if all persons would only gather them up.

Many seem to be dreaming their lives away; not by soundly sleeping at regular times, which is needful for the proper maintenance of refreshed and invigorated power, but they do not wake up to the realities of life.

"All work and no play makes Jack a dull boy," but when Jack is allowed all play and no work he becomes lazy and wicked, and is a very disagreeable fellow to have around. Habitual idleness is bad, very bad; so, too, may be a ceaseless, purposeless toiling. Pleasurable recreation is a necessity, for body and mind require relaxation to become rested and recuperated, and they also need exercise, that is, actual work, in or-

der to maintain their healthful vigor and strength. Working for a purpose, with some goal to be obtained, has in it an exhilarating tonic; while in the consciousness of making one's self useful there is experienced a thrill of pleasure.

Let there be some definite plan for each day's employment; systematized labor is the power that accomplishes something; and in planning do not despise the spare moments, but utilize them in some wise way; gather up grains of useful knowledge or perform little acts of worthiness in some manner. Rare and choice volumes have been read, and books of solid learning have been mastered by studiously picking up stray bits of time.

Blessed are the spare moments; let us not be spendthrifts of time, but gather up even the "gold dust" of the passing hours; hoard them with care and put them to the best possible use. And, if our lives be of short duration, may they be *much in little*, for surely he that lives well lives much; and whosoever would have head and heart-riches let him gather up these passing minutes.

There is a river of time flowing by us filled with grains and globules and flakes of golden opportunities, which, if we are careful to collect, wealth of supreme value shall be ours. ERRO.

WHAT IS INSTINCT?

FROM an article in a recent number of the *St. Louis Medical Journal*, we derive the following discussion of this mooted question:

Instinct, according to the distinction of the mediæval school-men, was ascribed exclusively to our dumb fellow-creatures, while the actions of man were supposed to be as exclusively swayed by the influence of a less unconscious, but erratic, presumptive and misleading faculty, called reason. "They call it reason and they use its power to get more wretched than the lowest beast," says the devil in *Faust*. In other words,

Providence was supposed to have insured the welfare of brutes by safeguards denied to man. But a critical study of the characteristics which distinguish mental faculties from those of the lower animals has refuted that fallacy, as well as Buffon's long accepted definition of instinct as a "propensity acting on impulse from within"—reason being "biased by external motives." The truth is that both kinds of incentive influence both kinds of action, the difference being merely a variation in the degree of that influence. Every man's individual character is apt to bias the ex-

ternal motives of his conduct. Danger enjoins caution ; but passion, pride, impatience vote to disregard the warning and argue just as eloquently as dissenting prudence. The innate bias called temper continually interferes in the council of our intellectual faculties.

On the other hand, no instinct of the lower animals is actuated exclusively by intuition. External circumstances determine at least the mode, and often the time of its manifestation ; the wander-instinct of migratory birds asserts itself sooner or later, according to the meteorological prospects of the season. The protective instincts (of which man himself has a fair share) reveal themselves only on special occasions. The weaving propensity of the spider fluctuates with the changes of the thermometer.

The following characteristics distinguish instinct, in the specific sense, from reason, as we call the faculty of choosing convenient means for a conscious purpose.

(1) *Instinct is one-sided.* The marvelous ingenuity that surprises us in the instinctive performance of the lower animals subserves only a limited purpose. The bee is a master in wax-work, but can not apply its talent to any other material, and even in wax it can work only after a special pattern. The dog's faculty of direction guides him through pathless forests, but does not enable him to find his way out of a common turkey-pen. I have seen a spaniel raging around for hours in a trap of that sort, trying to displace the top-rails and wearing out his teeth in a vain attempt to know his way out, instead of stooping a bit and crawling out by the way he had crawled in. Nothing can be prettier in its way than the firmly imbricated texture of the linnet's nest with its clever assortment of fine and coarse grasses, cunningly interwoven with shreds of gray moss to assimilate its color to that of a lichen-covered tree. Yet it would exhaust the extreme measure of human patience to teach a bird of that sort to

weave a little basket, even with its favorite material. The conscious rules which a professional basket-maker applies to his craft could be applied to a variety of other trades. A good sculptor could generally earn his bread as a portrait-painter ; a saddler could make, or soon learn to make, shoes ; "Constructiveness," as the physiologists call a gift for complicated mechanical performances, insures success in almost any manual trade. Instinct has been compared to a wall-gun firing out of a narrow loophole, reason to a rifle that can be turned in every direction.

(2) *Instinct acts with uniform precision.* Reason needs laborious preparations to rival the prompt performance of instinct-guided animals ; but the perfection of those performances has led many observers to overrate the mental faculties of the performers. Charles Reade tells us that he watched the colonists of a new ant-hill for half an hour, and "made up his mind that they had more brains than monkeys." It would, indeed, take years of training to teach a monkey to perform something analogous to the functions of a working ant, and without instruments of extreme precision no wax-worker could imitate the structure of a honey-comb. The wall-spider constructs her nest on a plan that insures resisting power combined with extreme, almost aerial, lightness. But the success of those clever workmen is evidently not the result of reflection. The bee builds her first cell as mathematically correct as her last. The young ant needs no instruction ; the young spider produces a web of the approved pattern as readily as the young oak-tree produces an oak-leaf. Even the birds of each species build their nests so exactly alike as if an automatic faculty had dictated even the arrangement of details. In a nest of the Mexican weaver thrush I once found a bit of grass of a peculiar golden yellow, that I tried in vain to rediscover on the neighboring mountain-meadows. But in the next

thrush-nest I found an exact duplicate of my nondescript, interwoven with the lining of the nest in a precisely corresponding fashion: *i. e.*, by twisting the ends out of the way, so as to keep the sharp barbs from protruding inward.

In the city-moat of Para, at the mouth of the Amazon River, a number of alligators are kept as public pets and fed with the offal of the slaughter-houses. Now and then a liberal patron treats them to a lunch of fresh fish, but one day, when five or six of them were raising their heads in an expectant attitude, the mate of a river steamer flung them a live specimen of an electric eel (*gymnotus*), hooked to the end of a stout string. If any of them had touched it, it would have given him the lock-jaw for the rest of his life, but the practical joker was disappointed.

As soon as the treacherous tid-bit touched the water the lunch brigade scattered like a drove of pigs at the sight of a rattlesnake. Yet these same saurians had been fed by hand for the first eighteen months of their conscious existence, and it was absolutely certain that not one of them had ever seen a *gymnotus* before. A kid, on its first appearance on a swamp pasture avoids poison plants as carefully as the wisest old billy-goat. And such protective instincts are by no means confined to our lower fellow creatures.

After centuries of angry controversies the men of science are now pretty well agreed that alcohol has no remedial or nutritive value and should never enter the mouth of a human being. But instinctively a child of three years can come to the same conclusion. The taste, *i. e.*, the first taste of alcoholic fluids is so shockingly disgusting that temperance sermons should be as superfluous as a lecture on the folly of eating seething pitch. By persistently disregarding the protest of Nature, the instinctive aversion can at last be forced to yield to a morbid craving; the same boy who at first would have preferred soap-suds to bran-

dy, now learns to prefer brandy to ice-cream. But instinct is blameless; Nature has done her part by warning her child again and again. To the instinct of a normal human being fresh air seems almost irresistibly attractive; yet there are people who prefer to exclude the balmy breezes of the summer night, and feed their lungs on the hot miasma of a stuffy bedroom. The creatures of the wilderness avoid lung diseases by breathing the purest air; yet has instinct done more for them than it does for the blindest victim of the night-air superstition? If we should scorch ourselves, day after day with red hot coals till a cauterized skin had become a second nature, we would have no right to complain that the Creator had neglected our instincts and failed to warn us against the dangers of fire.

(3) *Instinct in its highest forms seems to act by a special sense.* We are too apt to forget the difference between a definition and an explanation. A new name satisfies the public often as well as a new theory. Scientific nomenclature has its uses; but we should remember that we have not advanced a single step towards the solution of a great mystery by calling the marvelous instinct of dogs and migratory birds an "intuitive faculty of direction," though a Spanish professor is said to have delighted his audience by informing them that the sleep-inducing action of opiates had been traced to the somniferous properties of opium. To the ordinary scope of human comprehension an intuition acting without the medium of any known sense is a miracle, and that miracle can be wrought by any hunting dog of the popular North American varieties. A few years ago a Cincinnati physician made a test experiment by chloroforming a young hound and taking him off on a night train some hundred and twenty miles into southern Kentucky. At the terminus of his trip the still torpid quadruped was put in a sack and transferred to a hill-farm, a

few miles east of the station. There he was bedded in a comfortable stable and permitted to recover. The next morning a stranger was instructed to take him half a mile farther up-hill, then untie his leash and let him go, but watch his movements. For a few hundred steps the dog followed his guide. Then he stopped, looked thoughtfully left and right, and suddenly, as if he had somehow or other decided on his route of retreat, he slunk off, crossed a ravine and disappeared in the woods, north by north-west. Three days after he turned up at his master's gate. In the swallow, the crane and the stork the sense of smell is almost atrophied, blunted by disuse till the nostrils have become mere breathing appurtenances. The migratory falcon, too, hunts by sight rather than by scent. Yet these birds find their way from northern Europe to central Africa and back again, some of them even by night travel and without the aid of a veteran guide. Reptiles reveal that faculty. A sea-turtle captured at St. Helena fell sick after having been branded with the mark of the ship and was thrown overboard in the Bay of Biscay. Ten months after the same tortoise was recaptured on the beach of his native island, having retraced its voyage across a pathless water-waste of seven thousand English miles. To our own five senses the rediscovery of King Solomon's crown-jewels would not be a whit more impossible. Nor can such instincts as ours suggest any explanation of the fact that certain insects (butterflies for instance) can discover their favorite plants from any distance and in any hiding-place. A special kind of mould feeds on the decay of every special organism; fruit-mould differs from bread-mould, even strawberry-mould from pine apple mould. It has been suggested that the spores of the minute mould-plant fill the atmosphere and germinate wherever they find a favorable soil, yet as soon as a certain kind of green cabbage is planted in any garden of the

Florida jungles or the northwestern Rocky Mountains, the nether side of the leaves will get fringed with the eggs of a whitish-yellow butterfly (of the genus *colias*), even where such butterflies were never seen before. Winged insects can also discover their mates in any retreat; and a blind bat can still steer her way through a labyrinth of tangled tree-tops.

Spallanzani proved that fact by a cruel but conclusive experiment. He destroyed the eye-sight (rudimentary, at best) of five different species of south-European bats, and let them fly in a room where tight-drawn strings crossed the air in every direction. All of his bats that could be made to take wing at all proved that they could steer their way through all obstacles, nay, without ever touching the strings or wall.

If it is true that blind men learn to avoid collisions by a sort of new sense, an investigation of that faculty might throw some light on Spallanzani's problem. "Sixth senses" may be reserved for special occasions; how else should we explain the admitted fact that sick people can sometimes instinctively indicate a diet that will act as a specific for their special complaint—even without being able to specify the cause and the nature of such complaints. In such cases we have a commentary to the unexplained gift of *adapting means to an unknown purpose*. The caterpillar spins her shroud without foreseeing the destiny of the confined chrysalis. The butterfly in depositing her eggs on certain plants does not feel the needs of the future caterpillar nor remember the appetite of her own worm-state. The squirrel builds its warm winter house long before the beginning of cold weather. Dying animals exert all their ingenuity to hide their last resting place; yet experience can not enable them to foresee the length of the approaching slumber. Nor does the wasp recognize the necessity of saving her young from slow starvation, though she attains that

purpose by killing a belated brood of her own larvæ.

Instinct in the lower animals may be

defined as a monitory voice of Nature, revealing the fittest means to a wise, though unrevealed, end.

BRAIN POWER IN THE HORSE.

MANY years of careful observation have taught me that the horse is endowed with mental faculties, differing, of course, in degree, but in very many respects identical with those of man. I have further come to believe that the difference between horses, like the difference between men, is largely, if not entirely, the result of a difference in brain power.

The native country of the horse, like the home of primitive man, is a matter of useless conjecture; but we do know that neither myth nor record refers to a time when the lower animal was not the companion and useful servant of the higher one. It is but little to our credit that after these long centuries of association we should know so little about the brain power of the horse, and so much about his physical capacity. That is, we have been studying for centuries mere *effects* and the best method to produce them by crossing, while we have *blindly* ignored the *brain causes* that lie back of these *effects*, and which, if properly understood, would enable us to produce at will, as instanced by Jacob and his flocks.

It is true zoologists have classified the horse; they tell us that "scientifically he is known as *equus*, a genus of pachydermatous quadrupeds of the family *Equidæ*, or *solidungula*, etc.;" "that the lips and teeth are adapted to the short, dry herbage of the plains and arid hills;" and that "the feet are adapted to dry rather than soft or swampy ground." Science has further told us all about the anatomy of the horse, and the difference between the living species and the fossil remains; but, as a matter of fact, the ancients, who knew nothing at all about a horse in the scientific sense, had a far better knowledge of the animal's mental

qualities than have we. Homer gives the horses he introduces into the Iliad the perceptions and heroism of great actors, full of intelligence and lofty courage; and one of the most sublime passages in Job is a description of the horse:

"Hast thou given the horse strength? hast thou clothed his neck with thunder?"

"Canst thou make him afraid as a grasshopper? the glory of his nostrils is terrible.

"He paweth the valley and *rejoiceth* in his strength; he goeth on to meet the armed men.

"He *mocketh* at fear and is not affrighted; neither turneth he back from the sword.

"The quiver rattleth against him, the glittering spear and the shield.

"He swalloweth the ground with fierceness and rage, neither *believeth* he that it is the sound of the trumpet.

"He *saith* among the trumpets Ha, ha: and he smelleth the battle afar off, the thunder of the captains and the shouting."

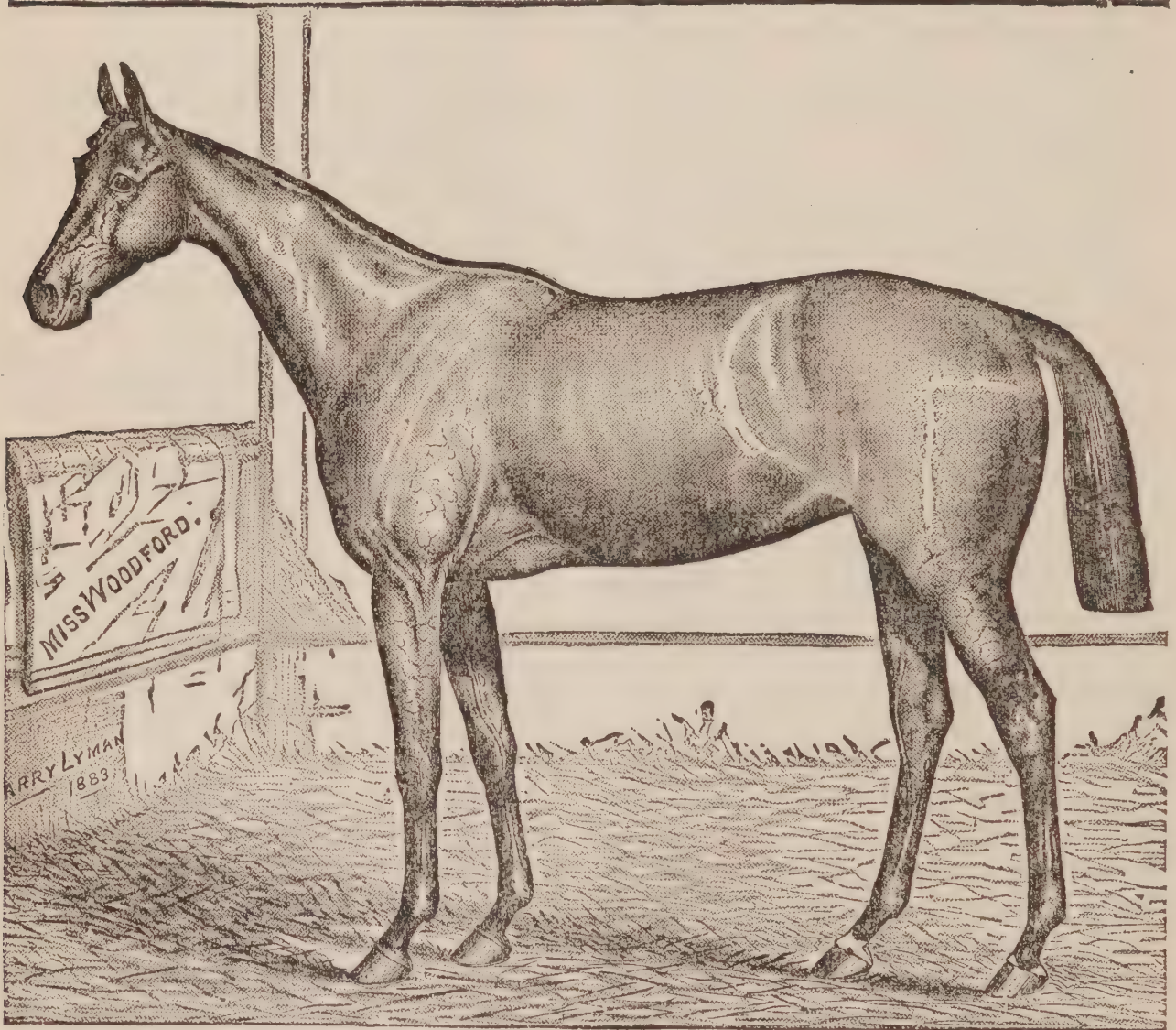
Clearly the author of Job believed that the horse had a brain power higher than that described by the word "instinct," a word which Worcester defines as follows: "A natural impulse in animals by which they are directed to do what is necessary to the continuation of the individual and the species independent of instruction and experience; desire or aversion acting without the intervention of reason or deliberation." If the word "animals" includes man, the definition may be accepted as reasonable, otherwise it is confused and misleading; though it is quite as good as any the metaphysicians have given us up to date.

A most interesting article could be written on "The Horse as Seen in the

History, Poetry and Mythology of the Ancients," but such a consideration would be out of place at this time. It is not my purpose to institute a comparison between the mental and physical qualities of men and horses, still one can not but be struck by the parallels that exist between the evolution of man from the savage state to the highest civilization, and that of the horse from his primitive condition of wildness to the most perfect

Maud S., and the wild horse of Tartary, or South America, or such as recently roamed over our own western plains, as there is between the aborigines of the lands in which the wild horse is found and the inhabitants of those countries in which the domestic horse has been brought to the highest degree of perfection.

To say that this difference is simply a physical one would be as great an error



NERVOUS OR MENTAL TEMPERAMENT.

condition of domestication. It may be urged that man has progressed by his own effort; but to this we can only reply that, like the horse, he has advanced by his capacity to adapt himself to altered circumstances. We are very sure that there exists as much brain difference between the blooded racer like Miss Woodford, or the more exquisitely organized

as if we were to say that the difference between barbarous and civilized man is purely physical. So far as strength, animal courage, and capacity for continued physical effort are concerned, the average savage is vastly the superior of the average civilized man; and so with the wild horse; he will go longer without food, he is less subject to disease,

particularly of the feet, and he will go further in one effort than the domestic horse. So far as the physical capacity to ignore or overcome physical obstacles is concerned the savage man and the wild horse are superior to their civilized or domesticated prototypes. We do not for a moment hesitate to assert that the difference between the savage and the cultured philosopher is a difference in brain power, but when it comes to what we call "the lower animals," we flip-pantly say, "Oh, its a difference in stock and breeding, you know." We never trouble ourselves with thinking that it is just this difference in "stock and breeding" that constitutes all the difference between men.

If instinct is "a natural impulse" in animals and the one force that directs them, then it must be regular and constant; but if the horse, or any other animal, is like the savage man, capable of receiving "instruction" and benefiting by "experience," then we hold that the same faculties are brought into play in the horse as in the man, and that the difference in capacity to receive instruction or to benefit by experience is a difference in degree and not in kind. If this proposition is accepted, and I can not well see how with the lights before us it can be denied, then man and the horse are moved by the same forces of instinct and reason, save that in man the latter predominates and in the horse the former. Instinct being the working of a natural law, it must, like gravitation or any other natural law, be constant and invariable; but if, as in the horse, we find that conduct is variable and inconstant, we must look beyond instinct for the cause, and we are driven to the only possible explanation: viz., brain power or reason.

I am aware that there is as much difference between brain capacity and actual reason as there is between an engine and the motor that drives it, but if we can show, even in a slight degree, that the horse remembers his instruction and

acts accordingly, or makes deductions from past experience, which imply higher faculties than those required to gratify want, then we must concede that his brain power is controlled, to a variable extent, by what we call reason. It is necessary to define terms as we go on, but the man who seeks an explanation of the term "reason" will find that there are as many and as diverse definitions of the word as there are writers on the subject.

Reason comes from the Latin verb *ratio*, to think, so that if we can show that a horse thinks, it must be granted that, in an etymological sense, at least—he reasons. But Worcester and others say it is reason that distinguishes man from the lower animals, meaning, as I take it, all animals of a lower organization than man's: "It is the power of deducing one proposition from another," "It is the thinking principle." Smart says that "Reason is passive, not active; it is not acquirable;" so, if the horse manifests reason, it is simply the exhibition of an innate and not of an acquired power, nor can it be the result of imitation. Dugald Stewart tells us that "reason enables us to acquire means for particular ends;" according to which, if a horse breaks down a fence to get into an inviting pasture he displays reason. But if, having entered the field, he is caught and punished, he will hesitate before doing it again, and this simply because he draws a logical deduction from his past experience. Reason and understanding, though sometimes used as synonyms, are different. Ideas are received by the understanding and judged by the reason, when, if approved, they are put into execution by the will. Now, understanding is as different from instinct as the trotting of a trained horse is different from the fall of a meteor. When the old street car-horse hears the bell he understands that he is to stop; at the sound of two bells he goes ahead; thus reasoning from his past experience. The greater the animal's brain power the

sooner he learns to read and interpret the signals and to act upon them by reason and will power. The best and shortest definition of reason is, in my opinion, "the purpose or motive of an intelligent act."

TEMPERAMENT IN THE HORSE.

Before citing examples, that are by no means exceptional, in proof of the horse's brain power or intellectual faculties, it may not be amiss to take a glance at the physical peculiarities which, even in men of the same race or family, we call "differences of temperament," and which exercise the greatest influences on brain manifestations. Physiologists tell us that there are four temperaments; viz., the nervous, bilious, sanguine and lymphatic; and that each temperament, though usually mixed, controls in a characteristic way the mind and body of the possessor. Now, it is not a little remarkable that horses of the same race and family are very often distinguished one from the other by a difference of temperament as distinct as that to be found between men.

I have seen two horses, full brothers and of what might be called a fairly pure breed, that were as different in temperament and, consequently, in brain power as an English hunter and a Clydesdale dray horse, excepting that in color and markings there was that general resemblance that always indicates the same strain. One of these horses, though naturally amiable, was nervous to the last degree. His ambition to do was unbounded, and restraint fretted the flesh off his bones. He had an utter fearlessness of the things he understood to be harmless, but the sight of a strange object, or the sound of a strange noise, would set him to trembling with affright that it was painful to see. He learned quickly and never forgot; but his high nervous organization and, at the risk of being laughed at I will add, his *vivid imagination*, caused him literally to fret his life away. The brother of this horse had what—to carry out the analo-

gy—might be called a bilious-sanguine temperament. He was not very observant. He was docile, but not affectionate. He required constant urging, but when once aroused his lasting power and his willingness were something wonderful. As might be expected, he ate less than the first horse, but as the demands on his vitality, owing to temperament, were less, he always kept in good order, and he lived to a green old age.

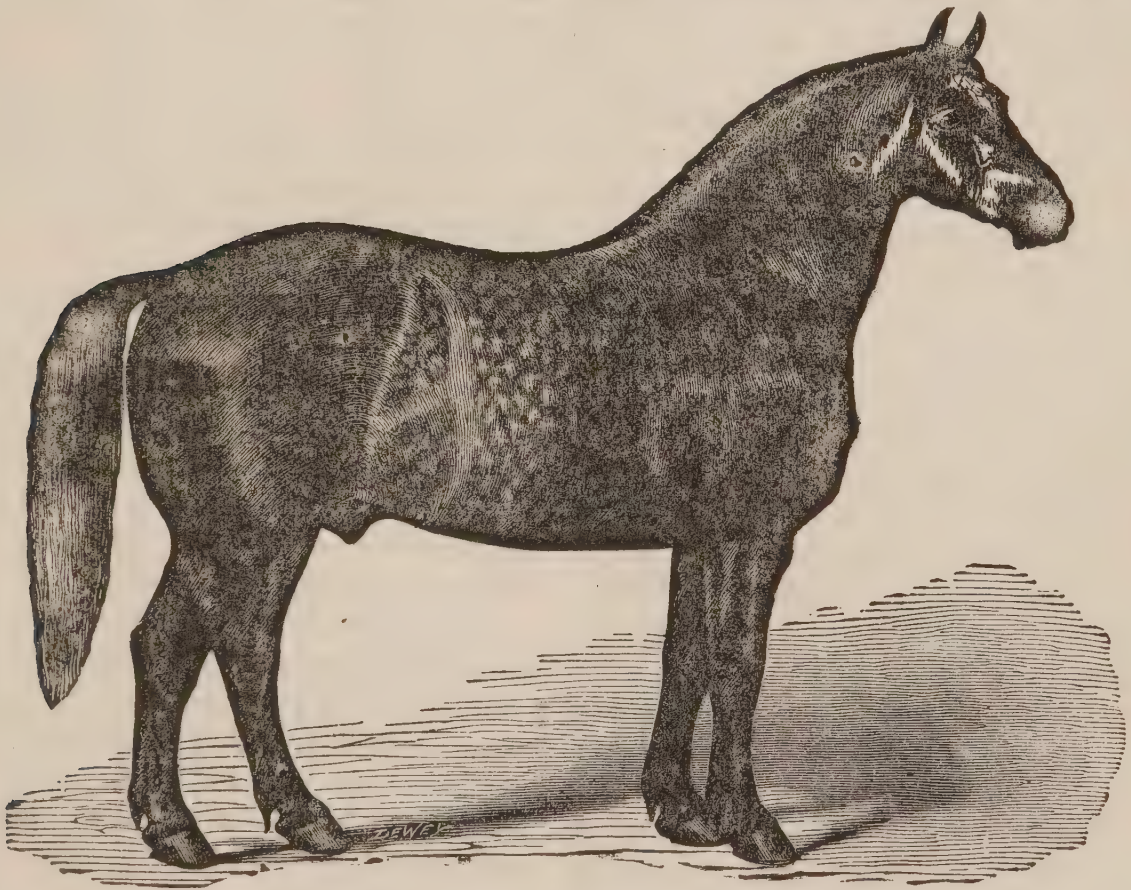
This difference of temperament is as distinct among horses and as easy to distinguish as it is among men. The dray-horse is bilious-lymphatic, the plow-horse nervous-bilious, the hunter nervous-sanguine, and the speed-horse, like Maud S. or Miss Woodford, is almost purely nervous, though Mr. Bonner's beautiful mare has a dash of the sanguine in her organization that adds to her amiability and her power of endurance. Every intelligent man who has had experience with horses will, I think, bear me out in saying that this idea about temperament is not at all fanciful, and that it is more readily detected in the horse, accustomed to act out his natural character, than in man who has a certain ability to conceal his.

Phrenologists tell us that, all other things being equal, the capacity of a healthy brain is largely measurable by its size, and that a large brain has more power than a small one of the same texture. The veriest novice in knowledge of the horse will tell you that he "has no use for an animal that is narrow between the eyes," and if you put the question to him, he will confess that he is suspicious of a man with the same brain peculiarities; yet, in the case of the horse, he never associates phrenological organization with the intellectual faculties.

I once had a beautiful bay horse with a fair brain development and an expression of the eyes as decidedly suspicious and treacherous as I ever saw in the face of a criminal. If I may be pardoned an expression which I would apply to the

criminal, that horse struck me as having a low or imperfect moral nature. Firmly believing in the gentlest methods of training horses as well as children, I undertook to use them on this horse, but without effect. He met all my advances with indifference or downright opposition, so finally I decided to show him by means of a good bridle and whip that I was his master. After much effort of patience and the lash, my horse was conquered, and as soon as he began to obey he showed a surprising aptitude

horse was loose in the yard, when he at once ran to a high picket fence between two buildings and rose to go over. Seeing the jump could not be made, he began shaking his head and pacing back and forth, exactly as I have seen an enraged tiger do in a cage. I called to him and made the usual gestures, but for some minutes he did not heed me. Suddenly, and with such an expression of hate in his eyes as I never before or since saw in the eyes of any living creature, he uttered a cry and



MOTIVE-VITAL, OR BILIOUS-"LYMPHATIC" TEMPERAMENT.

for knowledge. He acquired what we call "tricks" with the greatest readiness, and he never forgot them. He was the show-horse of the neighborhood and as fine an animal as I ever put in harness. But in the carriage or exhibiting his tricks the whip was always in sight, though never used after the first severe training. I noticed when alone with the horse in the stable yard that he always kept his nose close to the whip, and he would follow it as a bit of iron will follow the magnet. But one day I happened to drop the whip, while the

ran at me with open mouth. Alarmed, I staggered back and, as I did so, I came upon the whip; I seized and raised it and it had all the effect of a magic wand. The horse stopped as suddenly as he had started, and with equal quickness his whole manner changed, while of his own volition and without any signal that I was aware of he began to go through his tricks. I owned the horse for years after this, but he never again showed hate, even though I often appeared to him without a whip. This experience is given to show that the horse reasoned

as a criminal under guard might have done. The prisoner notices the guard without a gun and makes a break for liberty, when, to his utter surprise, he sees the guard taking a gun from the ground. The horse, with lower brain power, must have reasoned ever after that even if he could not see the whip that it was a part of my person which I could produce on the instant if necessary.

As with man, so with the horse. Sight and touch are the two great avenues of education. The horse feels through the very sensitive nerves at the end of his muzzle, but as his sight is dual so I am inclined to think are the sensations he receives through his eyes. I have known a horse with perfect eyes to shy only on one side; and I have known a horse not at all afraid of an umbrella on his right side to tremble with alarm when it appeared to his left eye, and this fear continued till he had been allowed to feel it with his nose. This is not instinct, but it shows a low order of intellect; yet, before feeling contempt for the brain power of the horse, we should call to mind that the savage man only fears and worships the things he does not understand. Even the cultured Aztecs whom Cortez found in Mexico were shaken with alarm when they first saw a man on a horse, but when they discovered that they were two entirely distinct animals their dread vanished. It is the unknown that feeds the superstitions of men and the fear of horses; in both the imagination is concerned, and the imagination when cultivated is the highest of the mental faculties.

Without having entered on my subject I find that already I have exhausted the space I marked out for myself, if, indeed, I have not exhausted the patience of the reader. It was my purpose to say more about the development of the horse's brain power by judicious training—just as we develop the brain power of children, and also to show how uncongenial conditions and disease

dwarf the natural brain power of the horse as they do of the child; but this view of the case must be deferred for the present. What I believe myself, and what I feel certain I have only feebly conveyed to the reader of this paper, is that brain power, even more than physical form, distinguishes the higher type of horse from the lower, as it distinguishes civilized man from the savage.

The brain space in the skull of the domestic is larger than that in the skull of the wild horse. The wild horse reasons after a fashion, as does the savage man, and the sudden domestication of either results simply in the crushing of the spirit which we call "training," or "civilizing," but unless when the subjects are young it never produces brain activity; indeed, the result is, as a rule, stupidity.

I have personally examined some of the finest horses in America, and it has been my misfortune to see some of the meanest. I have tried carefully to study both, and my first conclusion is that the all-important difference consists in a difference of brain power. Form, spirit, aptitude and expression are largely the exemplification of the higher mental faculties in the racer, exactly as form is found to be in harmony with the mental characteristics of the blood-hound and bull-dog.

The oral language barrier need not separate us from understanding what we call "the lower animals," if we only translate aright the one universal language of signs and expressions. We shall never know more of the horse till we concede that he has mental powers that in their degree, are as easily understood and as easily cultivated as our own.

L. H. BELLAMY.

—————▶▶▶—————
Gorgeous leaves are whirling down,
Homeward comes the scented hay;
O'er the stubble, sear and brown,
Flaunt the autumn bowers gay.

Ah, alas!
Summers pass,
Like our joys, they pass away!

GEORGE ARNOLD.

ARISTOCRACY IN AMERICA.

IN the *Eclectic Magazine* for October, 1885, is a singular essay written by Matthew Trumbull, and taken from the *Nineteenth Century*, entitled, "Aristocracy in America."

The Americans, he assures us, believe they are free from aristocracy because they have no "titled nobility, nor any hereditary privileged orders." But this, he says, is a mistake—that "aristocracy is not only legal in the United States, but it has been deliberately established in the Constitution."

He says that the word aristocracy is used by him not in its technical or dictionary meaning, but as it is generally understood by the people of the United States "to describe a class of pretenders who would be titled people if they could, and a class who assume superior importance on account of money."

Inasmuch as in all civilized countries whether organized under a written constitution or not, there can be found those classes of people, it would seem to be a very indifferent subject for a labored essay. He admits that these kinds of aristocracy standing alone, can produce no harm without a political foundation, but adds that such foundation has been provided for in the Constitution of the United States. The fair inference from this would appear to be, that it is provided in the Constitution that some American citizens would hanker after a title, while others would make a vulgar exhibition of their wealth. In what part of the Constitution these classes have been provided for has as yet escaped the observations of any ordinary or extraordinary reader. And inasmuch as title-hankering and purse pride are common traits, they did not need the laborious framing of a constitution to bring them into exercise.

In his further treatment of the subject, however, Mr. T. appears to have lost sight of these two interesting classes of people, and labors to prove that by

the Constitution, undue prerogatives have been invested in the different branches of the government. He says:

"The kingly powers of the President, the equal representation of unequal states in the American Senate, the small number of the Senators, the select persons who appoint them, the mode of their election, their long term of office, and the greatness of their prerogatives, make a broad and strong foundation for an American Aristocracy." And as a conclusion from these premises he says: "It is worthy of the deep thought of the student of history, that during the ninety-five years of the American Constitution, the English Constitution on which it is founded, has been radically changed until now the government of Great Britain, while preserving its monarchical and aristocratic form has become in practice a representative democracy, while the government of the United States preserving its representative form has become in practice what might be called a constitutional monarchy."

On the assumption of the truth of this conclusion, it certainly presents one of the most remarkable of the phenomena of history that a republic in form and in facts in which the subjects are and have been in the enjoyment of equal privileges, had degenerated into a constitutional monarchy, and no one but Mr. T. should be cognizant of the change.

But let us with as much brevity as possible, examine the allegations, and see how they accord with the facts.

He says the Constitution was framed by lawyers who had no personal knowledge of the working of any constitution except that of the English, consisting of Kings, Lords and Commons. "They made the king elective for four years, not by the people at large, but by a select body of citizens entitled Electors." He adds, however, that "this exclusion of the democracy from any direct agency in the choice of the President

has been evaded by an ingenious device known as a nominating convention."

It would have been more candid in Mr. T. to have given a correct account of this change. The Constitution as originally framed provided for the appointment of electors by the legislature of each state, in numbers equal to its representation in Congress. These electors were to meet in their several states and by ballot, vote for two persons, make and send the names under seal to the president of the Senate who, in the presence of the House, was to count the ballots, and the man having the highest number was to be declared President, and the next highest the Vice-President. But by an amendment of the Constitution in 1789, the electors thus chosen were to vote *eo nomine* for President and Vice-President. At an early period afterwards, the several states by statute law provided for the choice of electors by the direct vote of the people. The result has been, that each political party in the States nominates its candidates for President and Vice-President and nominates and votes for electors favorable to their presidential nominees.

Here then, at this early period, was the removal of an aristocratic feature of the Constitution in favor of the democracy; and a further change has been mooted and will probably be adopted, giving the people the right to nominate and vote directly for the presidential candidates.

But it is alleged that the President has kingly powers. This may to a certain extent be true. He is an *executive* officer, and so is a king. But whether those of the President tend to create an aristocracy depends upon their character and extent.

They may be summarized as follows:

He is commander-in-chief of the armies of the nation and of the militia of the States when called into active service, but he has no power to create these forces. He may grant reprieves and pardons in cases of offences against

the United States. He may make treaties with other powers, with the advice and consent of the Senate. He may appoint ambassadors, judges of the Supreme Court, and other officers, not provided for in the Constitution, and fill up vacancies occurring during the Senatorial recess; and he may veto any law passed by Congress subject to its re-passage by a two-third vote of the branch in which it finally passed.

The idea that the President with these united powers, and holding office for only four years, during which he is subject to impeachment and removal for malversation in office, has kingly powers sufficient to create an aristocracy is about as absurd as can well be imagined. The fact that no President, during the whole ninety-five years of our existence as a nation, has been re-elected for more than one additional term, is a sufficient answer to Mr. T's idea of the so-called *Kingly Powers*.

But he alleges that the President by his veto power has made himself equal to two-thirds of Congress. He might just as well have said that the power of impeachment had made the Senate superior to the President.

We are also told that the American Senate is the most important political aristocracy in the modern world. It would follow, that if the President by his veto is equal to two-thirds of Congress he is the most important aristocrat in the universe!

In a constitution granting powers with checks and balances, the veto power was indispensable. Congress is composed of two branches—the House of Representatives and the Senate. The former is the more popular branch, composed of members directly voted for by the people and holding office for two years; while the latter is made up of two members from each State and appointed by the legislature thereof for six years, and consequently one remove from the popular vote. Both being popular assemblies would be subject to the influ-

ence of public opinion, though the Senate in a less degree. As a check to unconstitutional legislation, or to the passage of unwise laws, under the influence of great popular excitement, the veto power was given to the President, and during the life time of the Republic no material harm has resulted therefrom.

The Senate, however, is invested by Mr. Trumbull with the most fearful aristocratic powers, he says: "The American Senate is the most important political aristocracy that has existed in the modern world"—"Other aristocracies have existed with larger personal privileges than the American Senators have, but none with so much legislative power. An American Senator may by a single vote give away a million acres of land."

This is not only misleading, but absurd. An act to give away land, as for any other purpose, must be passed by both Houses, and in doing this both are equal. Suppose the Senate passes an act to give away a million acres of land. It must then be sent to the House, and suppose it passes there by a majority of but *one*. It might then be said, with equal correctness, that a member of the House may by a single vote give away the land. And it follows that there is no superiority of the Senate to the House in legislation.

The object in having two branches in a legislative body is, that the one may operate as a check upon the other. In our system the House may be regarded as the popular branch. If the House alone constituted the entire legislative body, unwise legislation would be more likely to occur during periods of great popular excitement. As a safeguard against this, the Senatorial branch was framed, and as a further safeguard the veto power was given to the President.

These powers, as checks and balances, have so far been found to work admirably; and how any one can find in it the elements of a constitutional monarchy, it is difficult to believe. Yet we find Mr. T. saying: "Thus, while pre-

serving the republican form, it has reached' in practice very nearly the shape and character of the English monarchy of old time."

Mr. T's essay contains some original and strange ideas as witness the following:

"In striking contrast to the past ninety-five years of the history of the English monarchy is the ninety-five years' history of the American republic. During that time the United States has by the vast increase of its territory, its population and its wealth multiplied the influence of the Senate, relatively decreased that of the House of Representatives and by investing the President with the character of a party leader armed with the veto has made him a real political power, equal to two-thirds of both houses of Congress. Thus, while preserving the republican form, it has reached in practice very nearly the shape and character of the English Monarchy of old time."

The plain inference from this is, that the causes here enumerated have increased the powers of the Senate and of the President. There has been as he states, a vast increase in territory, population and wealth, but these have not changed in the slightest degree the fundamental laws. Neither the Senate, the President nor the House of Representatives have any more or less power than before; nor has any President, as a party leader, succeeded in being re-elected for more than one term, as already stated. Mr. T. is evidently in a state of confusion between the *unwritten* constitution of England and the *written* one of the United States—the former being of a traditional character, and hence to a degree elastic and uncertain, while the latter is written, and certain in its provisions.

Of the Senate he says further, that, "it may stand for years an immovable obstacle in the way of popular advancement and reform."

It would have been better for him to have stated in what instances the Senate

could present such an obstacle. He forgets or ignores the fact that the elements of popular advancement and reform are within the jurisdiction of the legislature of the several states. Each state is organized into a separate government under a constitution framed very much after the pattern of that of the United States, and has exclusive jurisdiction on all matters not embraced in that of the general government, such as the division of its territory into counties and towns; the incorporation of cities and villages; the assessment and collection of taxes; the establishment of Courts of Justice, the providing the means of education from the common schools up to colleges, universities, etc., etc., with all of which the general government has nothing to do.

In the imagination of Mr. T. the Senate appears the principal seat of aristocracy, as witness the following: "The main source of American aristocracy is in the Senate, and the trunk of it and the branches of it grow and flourish from unlimited taxation." The Senate can not originate a bill to impose taxation!

Again, the Senate is firmly entrenched in the citadel of the Constitution, it can not be swamped like the House of Lords by the creation of new Senators; nor can the Constitution be amended except three-fourths of the Senate agree thereto.

Thus far it would appear in the mind of Mr. T. that the Senate has been the primary agent in changing us into a constitutional monarchy. The President being, as he claims, equal to two-thirds of Congress by reason of his veto, has been a necessary agent in producing the same results, while the House of Representatives, being the feeblest branch, has been a passive factor in this mighty change. But, strange to say, after coming to this most unwelcome conclusion, Mr. Trumbull appears to have wiped the dust from his spectacles and made the discovery that the House

of Representatives is, after all, the most powerful, by reason of that provision of the Constitution which vests in the House "the exclusive power to impose taxes and the right to stop the supplies." This power, he thinks, will "some day revolutionize the American government without bloodshed," "blunt the edge of the President's prerogative," "and reduce the Senate to a secondary and inferior position."

This remarkable essay is a pretty fair illustration of the almost total inability of foreign writers to comprehend the machinery and working of the United States government.

B. G. FERRIS.

MONEY.—One of the greatest difficulties encountered in the social life of man was overcome by the introduction of money as a medium of exchange. Human beings, unlike lower animals, were formed to make different commodities for each other; how were they to be exchanged? How could the men who wanted each other's goods be brought together for exchanging? A farmer was in want of a coat, but the tailor had no desire to obtain a calf—he was in want of shoes. Here were two sellers and two buyers, yet neither could procure what he needed; money came to the rescue. The farmer sold his calf for money, and with that he procured the wished-for coat from the tailor. The tailor repeated the process with the shoemaker. Thus money solved the difficulties. Four exchanges were brought together instead of two, and two articles were sold and two bought; and by this employment of a common tool for exchanging the greatest principle of associated human life was established—division of employments. Money first bought the calf, and then traveled on to buy a coat. It fulfilled its one service—to exchange, to place different articles in different hands. It became, therefore, merely a tool—an instrument—valuable only for the work it accomplishes.

NATURE AND THE HEART.

(From the Swedish.)

O Nature! thou doth everywhere,
 With tireless charm, thy realm renew;
 Forever young, forever fair,
 The green-clad earth, the starry blue.

Eternally, thou golden Sun,
 Unfurls thy rosy beaming flame;
 Thy radiant rays cheer every zone,
 Since first to earth their glory came.

Thou sparkling stream, thy tuneful tide,
 Still through her flowery border flows;
 Her waves as gaily onward glide
 As when from earth's green heart they
 rose.

And thou, green grove, the same bird song
 Eternally thy branches thrills;
 Eternally thy shadowy throng
 Entreats the soul forget her ills.

The skies their blue and gold have on,
 And earth her youthful roses wears;
 I have a heart, and I alone
 Must grow so gray and old with cares.

Hush, Hush, my heart! and hide thy pain;
 So soon life's troubled dream is gone,
 And thou some day shalt bloom again,
 To sweeter love and joy new-born.

LYDIA M. MILLARD.

MORAL CULTURE.

THE frequent occurrence of fraud, speculation and various crimes punishable either in prison or upon the gallows among persons of high mental culture has led men of all religious denominations in Christendom to investigate the causes of this state of things. And the reasons given in our country are as numerous as the denominations of Christians in it. This diversity of opinion arises from the fact that no system of mental or moral philosophy has ever been taught in the schools of the world that had its basis on the foundation of truth! Conscience, by the metaphysicians of all ages before the time of Drs. Gall and Spurzheim, was not considered an innate faculty of the mind, and morality, they argued, was in consequence of having a well-cultivated intellect.

The result of this teaching has been to find men in all countries, from the time that Moses led the children of Israel out from Egypt to the present day, who were great in literature, science, philosophy, and religion, guilty of the most heinous crimes that man can commit. And it also accounts for the failure of the public school system of New England to produce a strictly honest, law-abiding population from the unadulterated descendants of the Puritans.

The education and training of the intellect, to the neglect of the culture of conscience, only tends to the commission of crime on a stupendous scale. Hence, we had in our own country a Burr and Arnold, besides multitudes of bank cashiers and men entrusted with large sums of money, who were intellectually strong, but morally weak. The continued existence of this state of things in relation to man's intellectual and moral condition is not in accordance with reason or revelation. Man is a progressive being, not only in knowledge but in morality and consequent freedom from all immoral practices.

We look upon all Scripture as being the will of God revealed to man for his special benefit in this life, to say nothing of a future state of existence. The precepts of Jesus Christ are without a parallel in the moral history of the world, but his commands, which have been the guide of a portion of the race for more than eighteen hundred years, have not been implicitly obeyed. The Church founded by his apostles, and conducted on the principles they promulgated, has not been kept spotless and free from the inroads of licentiousness and crime. The Roman Church became corrupt before the time of Luther, and a great

amount of wickedness has existed in the reformed churches since his day.

Is there a remedy for the state of things now existing in the world of morality? is a question deeply interesting to every philanthropic mind. And it can be answered in the affirmative by every intelligent phrenologist in the world. It can be done by giving as much attention to the cultivation of the moral faculties of the young as is given to the development of the intellect. This work, we admit, must be gradual. A nation can not be born in a day in the moral world any more than in the physical. As the husbandman sows his seed and patiently waits for the coming harvest, so those who desire the moral improvement of man must begin with training and developing the organ of consci-

entiousness in the child, and wait for a succession of generations for the full fruition of their hopes. Because little progress has been made in morals during the present century the worker for human improvement should not relax his efforts, for the light that phrenology sheds about his pathway points, like the star of Bethlehem, to a time in the world's history when there will be no need of human enactments to make mankind yield obedience to the eternal principle of justice. With this belief fully permeating the mind the true Christian phrenologist can labor with a zeal worthy of the cause he advocates for the redemption of mankind from the thralldom of crime and its consequent degradation and misery.

P. L. BUELL.

THE NEWSBOY.

THE following picture of the newsboys of our cities is not overdrawn. In this country of infinite possibilities years bring strange vicissitudes of life and fortune.

They all look alike, they seem to be a distinct species, only merging from their special condition when the dignity of years robs them of their customers. Until then they look dirty, ragged and unprepossessing; they generally limp or hobble with a mashed heel or bandaged toe. His coat is seven sizes too large for him, and is fringed with tatters; his hat is of unmentionable shape, and may have been fished out of a garbage pile; a few streaks of dirt are grimed across his face radiating from his nose; his hair is matty and seedy looking; his hands are thick and smeared with several coats of dirt; and yet, withal, through all this rough and homely exterior he looks a pleasant, happy urchin, always ready for a joke and never at a loss for a reply. People pass him by, velvet-handed men and dainty-fingered women avoid him disdainfully, utterly disregarding his importuning cry of "Paper?" Do people ever think that just such a boy

with all his grime and rags and poverty may be some mother's pet, that he may sometime be president of this country, that he has a soul to feel and hope and a body to feed and clothe, that all this apparent wretchedness of condition is not his fault but his lot, and that he has to make the most of it? Does any one ever give him credit that he does not stand and whine because he was not reared in luxury and petted and caressed and cared for by doting pas and mas? Do they ever stop to admire the enterprise exhibited by one of these youngsters; the hard work and attention to business which they employ; the acuteness and watchfulness of any sign or indication of a purchaser? And all for a few cents. He stands kicks, cuffs, hardships, hunger and thirst, and is ever cheerful and thankful for only one smile or a bit of patronage. It would be well for some of our citizens to watch how the newsboys work and learn a lesson from them. It requires more enterprise, perseverance and tact to dispose of a bundle of newspapers than it does to run the routine filled out daily by an insurance president.



OVERDONE AND UNDERDONE VEGETARIANISM.

GLOOMY wisdom in hygienic as well as in moral reform—and neither branch of human rejuvenation can be isolated without disadvantage—is to little purpose; it spoils even more than it benefits. And we, the vegetarians, who want to raise the spiritual standard of mankind by means of hygienic improvements need no gloominess. Our aim is so serene, and our object so merry, that there would be inconsistency in giving up the calmness of mind which, aside from its inestimable value as an aid to fight one's way through whatever there may be, has the immense advantage of affording the utmost gratification to the person who entertains it. I insist that in most cases it would be exceedingly more prudent to detail as an emissary in the vegetarian campaign a bright woman in pink than an old foggy in black, and if the temperance stump-speakers would let the devil more alone, they would be more godly orators.

I have been brought up myself on principles of gloomy wisdom, but they have never done me any good. It took the best part of my life to rid myself of their influence, and practically they will, as a reminiscence, never lose their hold upon me. But just on account of that I am theoretically so much more an energetic and fervent adversary of such gloominess. It does

three bad things. 1. It scares away many who, with a little merriness, might be made converts; 2. It blinds us as to the faults of our system; and, 3. It spoils our enjoyment of life.

The public likes always better to be amused than to listen to croakers, and if a temperance campaign-fighter, instead of the usual heaven-high and hell-deep harangue, would get two little boys who hardly ever tasted anything else than water, and let the one drink a glass of lemonade and suck a chocolate cigar, and the other drink a glass of brandy and smoke a real cigar, the public would be given in the grimaces of the latter an *argumentum ad hominem*, as the logicians say, with reference to the compounds that come in either case. From a strictly moral standpoint it is no doubt justifiable to decry drunkenness as a sinful habit; it degenerates the godliness of man, and is an embezzlement, so to speak, of the boon of nature. But in exhorting a person not to drink, I should judge it would be a better plan to bring to his understanding the fact that he is a fool rather than a sinner. He doesn't enjoy his excesses, and from the very first to the very last of every spree this is nothing but what the poet calls the "curse of the wicked deed."

I have seen vegetarians in a beer garden drink their glass of milk with such

a crucified aspect of face, as if they underwent a most terrible sacrifice. Now, what an idea! Is beer, especially with its unfailing quassia adulteration, such palatable stuff? Or is there not rather reason enough to laugh at the crowds who swallow the abominable liquid, one glass after another, with no relish while they are drinking, except the craving for more, if you can call that a relish, and a sure prospect for the next morning of headache, a bitter taste in their mouth, morbid accumulation of phlegm in the throat, and a spoiled appetite?

A beefsteak one and a half inches thick, through which the knife goes as through butter, looks very nice, you may say. But do you know how such a beefsteak is prepared, or what is done to make it so tender that the oldest tooth of a bachelor customer can go through it? It is hung up in the cellar two, three days till it is just on the verge of putrefaction, and at that carefully watched moment it is taken and put in the frying-pan, and all the *habitués* of the restaurant or hotel claim that you can nowhere eat a better beefsteak than there. The gourmands and gourmets understand these tricks best, and practice them most outrageously. Now, then, is not that reason enough for the vegetarian when he sits down at his meal of greens with chestnuts, or pudding with prunes, and milk with graham bread, or oatmeal porridge, to chuckle and think of what big fools the extensive army of restaurant eaters is made up, who pay three and four times the price of beef because they get their steak half rotten!

Especially with children there is nothing less indicated than gloomy wisdom. You can easily make children take the vegetarian habit. But you must not sit at table as if you underwent the most severe martyrdom on earth. Be proud! ridicule the beef-eaters! Give your children a drastic description of the look of a finished carnivorous meal, with all its fatty plates, eaten-off bones and disgusting remnants. Remind them of the

heated condition they got in by meat diet, and the placid state of mind they keep with their natural habit of life!

Above all, don't forbid them to eat meat when they have a craving for it. Mind, that vegetarianism is so sublime an idea that its practice doesn't need any enforcing; it will vanquish by its own virtue, and if you overhasten it, you will make fewer converts than by letting it work alone.

In the beginning, after I had told the meat-man not to call anymore at my house, my eldest boy would now and then take his gun and go for a gannet or a string of quails, and when, taking the boat, he came home with a string of mullet or trout, or had captured a soft-shell turtle, there would be a big hallo; and on eating the supposed dainties they thought they had a fine time of it. And they had a fine time of it. But by and by this habit died away, the gun is standing rusty in its corner, and the quails come so near the house that they might be shot from the parlor windows.

Does not that show the intrinsic value of vegetarianism? But you must not spoil your game by being an underdone specimen of the wise, but rely upon your own faith, and the practical as well as theoretical wisdom of your standpoint.

An overdone vegetarian I can not approve, either. It seems to me an ape-like imitation to condemn cookery. Now, nature herself cooks, and in doing so is the most extensive sugar-producer in the world. You just try your peaches which ripened in full sunshine, and compare them with those which under leaves were denied his rays, and you will soon find what the cooking of nature is; so why should we not use the boon of nature, which, according to old mythology, Prometheus won from heaven? The California non-cooking vegetarians soak their grain anyway. So they can not make the standpoint of an ape quite their own. Why not go a step further, and grind it, and put it into an oven? Our jaws are somewhat different,

from those of an ape anyhow, and nature, by giving us more brains, no doubt destined us for a higher kind of gastronomy. The ripest and best developed fruit is the very worst for cooking. With it nature did all what was necessary, and it has to be eaten raw. But poorly developed, sour, and hardly ripe fruit is the best for cooking ; with this the artificial process does what nature has left undone, and brings her product up to the standard of a palatable dish. So let us go hand in hand with nature, and not make a preceptor out of her whose doctrines are devoid of common sense.

Allow me one remark more, I fear, though, it will be considered inconsistent with my general standpoint, because it seems to favor a little of doctrinarianism. But, on closer inspection, I trust it will be found that any doctrinarianism is only opposition to a dull habit. There are

some persons who will roast corn or wheat, or okra, and brew "coffee" out of them. The drink which the one or the other yields is anything else than coffee ; it is not nice either. But it looks like it, and the remorseful deprivation of real coffee is mitigated. These persons I call underdone vegetarians. They suffer by their vegetarianism ; but only because they want to suffer. They have no pride, no independent soul. They have not freed themselves of the old turn of mind ; they pursue their virtuous life with a kind of regret, and continue to nurse in their memory the sinful habits which they gave up ; longing for them as Moses' Jews in the desert for the meat-pots of Egypt.

This is not the way to make vegetarianism respected with our adversaries.

DR. LINDORME.

WANTED TO SWEAR.

THE kindest, sweetest, most unselfish, and most truly religious women I ever met, once confessed to me that she was the reverse of everything I thought her, for at that very moment she wanted to swear.

If a white rose could have found speech and communicated its desire to commit murder, it could hardly have been more startling, and yet I was not much surprised as others might have been, having seen and heard a great many peculiar things connected with the inception and progress of nervous diseases.

"I only tell you this," the poor little woman added with a painful flush, because every friend and acquaintance I have constantly overrate me. I want some one to know me as I am, and I am a very wicked woman."

"You haven't come to be outwardly profane yet, I suppose?" I inquired in a tone of facetiousness that evidently wounded her sensitive spirit, for she said quickly :

"Oh, please don't make light of it. It is desperate business with me, I assure you."

"I have no intention of making light of it," I replied. "On the contrary, I consider it a very serious matter, and if you go on as you are going now, you will not only want to swear, but you *will* swear."

"If I go on as I am going now?" my friend repeated, a look of wonderment on her sweet face, "I don't know what you mean ; but I am sure of this, that if I ever give utterance to the awful things that come into my head, I shall not be in possession of my senses."

"To clothe those thoughts with words would prove you insane. If that is the case, what kind of a mental condition can you be in to think such thoughts?"

"That I can't think such dreadful things proves that there is a moral screw loose, it seems to me," was the reply, made with the manner of one who had evid-

ently thought the subject out to her satisfaction.

The condition of this woman was so analogous to that of another friend which had come immediately under my observation, that I thought best to tell her the story. This friend had been a model housekeeper for twenty years. No better wife, a more conscientious mother, could have been found in the whole State of Massachusetts. She was neatness and thrift personified. Her house, large, roomy and comfortable was presided over exclusively by herself. She had done all the cooking for her family, attended to the milk of a dozen cows, made the butter, and washed all the dishes, and it was on this latter rock that her domestic craft was dashed and almost wrecked. There came to this woman at last a time when she was compelled to force herself to the performance of these various duties. Then she scourged herself and called it laziness and went on. After a while she was attacked by a low fever which the country doctor did not understand, and out of which she wrestled long before she was really able to sit up. Her husband was amply able to pay for competent domestic assistance, but as she had always chosen to do everything herself, it never entered his head to propose it, and this became a deep rooted grievance. She could not overcome the abnormal sensitiveness which was the direct result of long years of over-work and suffering, and so a coldness sprang up between husband and wife, which on her part developed into positive hatred. On the subject of washing dishes this woman became a confirmed monomaniac. She could drag herself about and make the bed, and cook the dinner; but the dishes drove her wild.

One day her husband ran to a neighbor with the astonishing news that she had at last gone stark, staring mad. The lady followed him home and found this once model house-keeper standing by the kitchen sink, laughing hysteri-

cally, and surrounded by smashed crockery of every description. As they entered, a sugar-bowl went slam-bang against the cupboard door, followed by a couple of handsome goblets, evidently the last of a new dozen.

"There," said she to her husband, "now, go and buy some new dishes, and then hire somebody to wash 'em. As long as I live I will never wash another one."

Now, horrible as this scene certainly was, and suggestive of straight-jackets and padded rooms, the fact really was after all that this patient had at last attained to sanity. This statement should have been made years before. It could then have been done in a calmer spirit, and with much less expense.

Now, it so happened, that the neighbor who had been summoned to this crockery raid was a woman of intelligence and experience, and through her influence the sufferer was taken from her home and placed under the care of a physician who was competent to deal with every form of nervous misery. With rest and judicious treatment, she entirely recovered. For the first two weeks she was sure that she could never see a dish without a desire to smash it. At the end of a month she could not understand how she could ever have been guilty of such conduct. Then came a period of remorse for her treatment of her husband, and other symptoms incidental to the restoration of a normal condition. It took six months to pad these bare and irritated nerves, and six more to attain to the physical strength which would make it safe for her to attempt the care of her much simplified housekeeping. But she returned to her home a wiser woman, and has since been a great comfort and help to other exhausted and overworked women.

"And you think my state as dangerous as that!" my companion inquired after listening with great interest to the story.

"Fully," I answered.

"But what am I to do?"

"Stop before it is too late."

"Stop what?"

"You have invitations out for a dinner party next week. Does the anticipation of it give you pleasure or the reverse?"

"If I were to talk a week, I could never make you understand how I loathe the thought of it."

"You are one of the chief managers of the orphan asylum fair. Do you feel enthusiastic about that job?"

"Oh, you are almost cruel," my companion responded with a quiver of her sensitive lip. "What if I were to tell you that I hate the sight and sound of that orphan asylum, and that sometimes I feel as if I would hardly care what became of the orphans if I were not obliged to see them again?"

"And yet you are perfectly aware that such a condition is in total opposition to your real, true nature?"

"Oh, I hope it is."

"How about your own children?"

"Their innocent fun drives me distracted, and I am only happy when they are asleep or out of the house. This has nothing to do with my health. I eat and sleep fairly. In fact, the only place where I am truly comfortable is in the bed with my door locked. I never pass the bed, or a rocker or lounge that I do not want to throw myself down and

close my eyes. To have some one rap at my door after I have grown a little quiet puts such thoughts and words into my head that then I am afraid to be alone. I tell you it is a question of morals and not of health. It is total depravity."

These symptoms are all danger signals. Months and months ago this woman went to the end of her tether. All that has been done since has been accomplished by the cruel use of irritated and exhausted nerves. She has now only half a hand, so to speak, on the helm. Her will is no longer strong enough to eliminate her thoughts, and every day under the present régime will find her less and less able to put a curb upon the feelings and passions which she so deprecates. More than one good woman has wanted to swear, and concealed the fact for years, but have ultimately used every bad word she ever thought of within the walls of a lunatic asylum. It was possible for this patient to have the best medical advice and follow it. She needed neither a confessor nor a minister, but a wise physician, a complete change, and rest for soul and body. When will women, intelligent and sensible in all other matters, come to understand the difference between illness and laziness, fever exhaustion and moral depravity?

ELEANOR KIRK.

CROUP.

THIS malady has always been regarded with dread, especially by the careful mother, who knows how quickly it may destroy life. *True* croup is, in fact, one of the most violent and dangerous of the inflammatory diseases that affect the mucous membrane of the throat and bronchial passages. Some authorities appear to think that there is little difference between croup and diphtheria, the false membrane which forms in croup being of a similar nature to that

of diphtheria. The most frequent cases of what is called "croup" in children are not attended with either fever or the formation of the membrane, but is a sudden spasmodic affection of the glottis and vocal cords that usually occurs in the night, and by its interference with the breathing produces a shrill, peculiar cough and convulsive efforts on the part of the child sufferer that are distressing to see. This form of croup yields readily to proper treatment.

There are several varieties of croupal disease, most of which have their origin in colds, or catarrhs, and in their treatment require such management as we should give to catarrhal disorders of the throat and lungs. True croup, or *pseudomembranous laryngitis*, or membranous croup, is the variety of which we shall speak here. This disease comes on gradually, and its essential feature is the accumulation upon the mucous membrane that lines the larynx of a whitish deposit like the lining of an egg-shell. This spreads over the membrane and, as it increases in thickness, blocks up more and more the passage-way for the air. The difficulty in breathing becomes more and more pronounced. Paroxysms of intense struggling for breath take place at intervals. In one of these life may become extinct, or, as more commonly happens, the paroxysms give way to a continued, rapid, ineffectual breathing that gradually wears away the strength of the child.

Symptoms.—Croup generally comes on like a common cold. There is some cough, like that of a slight catarrh, and slight fever. In a day or two the disturbance increases, the little patient now showing uneasiness or pain about the throat, with difficulty of breathing, hot and cold stages and a hoarseness of voice. An examination of the throat at this time will reveal, perhaps, but little sign of inflammation, although in coughing dark or purulent matter may be thrown out. Later the symptoms assume a threatening character, and the change may be rapid. The cough becomes "croupy," is sharp, dry, ringing, followed by a hissing, inward breathing. It is most frequent at night, and exhausting to the patient. His face becomes flushed, bloated and moist with perspiration, the skin is hot, the eyes watery, the pulse rapid and hard, and the surface in the region of the larynx is painful to the touch.

These conditions increase in severity, the membranous deposit contributing by

its gradual formation to greater difficulty of respiration. The cough is more and more violent, each fit being followed with more marked evidences of exhaustion. Sometimes fragments of the membrane are thrown out, with thick mucus; considerable pieces may come away in the form of tubular casts of the air passages. In such cases the patient may experience a temporary relief, but it is of short duration, the destructive action goes on, renewed attacks of suffocative cough occur until collapse takes place, when the child lies gasping with sunken, livid countenance and a cold, clammy skin. The cough is now less frequent, the pulse very quick, and the voice scarcely audible. A convulsion may terminate the scene—or the little sufferer fall into a state of lethargy or coma that is the antecedent of death.

Treatment. When true croup has become fairly developed the chances of success in any treatment are very few. If, however, the watchful mother apprehends danger, in the earliest stages of a slowly progressive attack, she may ward off the destroyer. Preventive treatment is, indeed, the only effectual means; so that when a child shows any disturbance of the throat and air passages immediate attention should be given to its relief. Infants are rarely subject to croup, but from two to six years of age constitutes the period when it is most likely to occur. Then a slight cough, or roughness of breathing observed, especially toward night, should arouse suspicion and active treatment.

The condition of the child as to fever and pulse should be examined, the throat well inspected, and, if inflammation exist, treatment should be given for its reduction. If the trouble be only a cold the child will be a gainer by its cure. In true croup the patient may linger seven or eight days, and while life lasts who would say that a cure is impossible. Dr. Shew says if the pyrexia or general feverishness of the body be kept "well subdued from the first" he does not see how

it is possible for a child to die of this disease, as a high degree of inflammation must exist for some time before the exudation that gives rise to the membrane can take place. If, then, the inflammation be checked sufficiently early and kept down, a cure is altogether likely. "Tepid and cold affusion; tepid if the child is weak, but cold if the contrary, with wet hand friction upon the throat and chest, the constant use of wet bandages upon these parts constitute the sum and substance of the best of all known methods of treating this disease."

In a violent attack it may be best to apply hot water to the throat by means of sponges or soft cloths. For some cases hot water is more remedial than cold, and if relief is not obtained quickly by the application of cold or tepid water resort should be had to water as hot as it can be borne.

To assist the patient in casting off the false membrane let the room in which he lies be filled, if possible, with steam, the temperature of the air being meanwhile kept up to a high point. The inhalation process is much in favor for diphtheria as well as croup. Besides the other treatment already described, which should not be relaxed—care being had at all times that the patient is not overheated or chilled meanwhile—the vapor of hot water may be given through a tube from a tea-kettle. The vapor of hot vinegar is also useful, and the fumes rising from water in which fresh lime is thrown, conducted from a closed vessel with a spout, are advised as excellent to detach the dangerous deposit from the air passages. A hot solution of chlorate of potash, injected by means of an atomizer, is of service also in some cases.

Dr. Gorham, of Albany, claims to have obtained much success in giving inhalation of bromine. Several alarming cases of spasmodic croup that had continued two or three days yielded promptly under the bromine spray, and one that was a most aggravated case of catarrhal croup, if not membranous, was quickly over-

come. The bromine should be used with a steam atomizer or a common toilet atomizer, five drops to the ounce of water, and the spray thrown in the face and mouth of the child for three minutes every ten or fifteen minutes, until relief is obtained, great care being taken to prepare the bromine out of the room occupied by the patient, to avoid the irritating effects of the dry fumes of the drug.

The last resort to save the patient's life is tracheotomy, or opening the windpipe by a surgical operation. An incision is made in the front of the neck, just below the larynx, and through the opening a silver tube or *canula* is passed. If the operation be successful the patient at once breathes freely, and, in time, the larynx may heal and become clear and the child be restored to health. It is known that in a very considerable proportion of cases the croupous membrane is limited to the larynx and the upper part of the trachea. Hence the introduction of the tube into the trachea lower down makes recovery probable, provided the operation is not delayed so long that the child has become exhausted, or until the lungs have become congested by their long-continued deprivation of air.

Within a few years this operation has been resorted to in a large number of cases, and the statistics of about 13,000 cases of its performance exhibit a result of 3,500 children who were restored to health. This means nearly as many saved from certain death. In the city of Brooklyn alone 2,768 children died from croup during the seven years from 1870 to 1876 inclusive. H. S. D

TO REDUCE FATNESS.—Galen says on this matter: "The best method of getting thinner consists in gradually withdrawing from the body that whereof there is superfluity, and in strengthening at the same time those parts which had been expanded. Bodily exercise will undoubtedly prove very advantageous,

as we see stout horses getting lean by heavy work. Thus, likewise, those will never grow fat who are obliged continually to toil with hard labor. This, however, requires great precaution, it being certain that fat people frequently run danger of death when attempting violent bodily exercise. Regular alvine motions, energetic bodily exercise, a

moderate life, a diet which, although satiating, yields but limited nourishment; which explains why another ancient authority, Hippocrates, advises stout people wishing to grow thin to dine on vegetables cooked with fat, in order that they may become satiated by a small quantity of food."

HAY FEVER.

"IT is a thing of mysterious origin, full of queer quips and pranks, and wholly unmanageable. We sneeze at it—though it really is not a thing to be sneezed at: no matter how unaccustomed to the melting mood, no one meditates upon it without weeping. It is anomalous in all its history, varying in details every year, and yet, on the whole, wretchedly alike from year to year. To all intents and purposes the eyes lose their function, the tongue loses its power of tasting, the ears are dull of hearing. One mopes about with a kind of influenza, or immense cold in the head, or with asthma; but, on the whole, the most characteristic symptom, which distinguishes it from all known affections, is the myriad sneezing power to which one is raised. Every hour is punctuated with sneezes; single ones fired off like a sharp-shooter's rifle, or a succession of a dozen in chase of each other, or a real *feu de joie*, thirty or forty, like the opening of musketry fire all along the line. If it were not that all sneezing takes one pitch, something musical might be made out of them. As it is, they rattle along like a snare-drum.

"While in this delicious state, quite apart from all ordinary moods of life, one wonders whether he ever did feel like other men, whether he ever again can sit in gentle currents of wind, or smell of flowers, or eat fruit, or go out of doors with unveiled face, or sleep without convulsive suffocation, or have restored the taste of food, or regain

buoyancy of spirit, or economize in pocket-handkerchiefs. * * One's temper is ruined. Questions are torments. If you rumble out an answer you are not understood, and the renewed question seems to you like an insult. You wish you were let alone. Some cave, some hermit's retreat, with no roads to be dusty, and no flowers to drive you crazy with tickling odors, and no lady to ask questions, but where you could be let alone, to doze, cough, wheeze, weep and sneeze in solitary wretchedness. For this is a misery which does *not* love company. * * * *

"It is important that persons afflicted with hay-asthma, and the number is great and apparently increasing, should know that although there is as yet discovered no radical and constitutional cure, yet that it may be held wholly in check, from year to year, by a *suitable change of air*. It is not enough, however, to remove from home. Either the sea air, in full measure, or the mountain air, is necessary. There seems to be something due to altitude, but what it is no one knows; indeed, those who have studied this anomalous disease with scientific accuracy seem as much in the dark as to its causes as other folks, nor have they settled upon any medical treatment. The sum of remedial knowledge at this time is this: that many persons are entirely relieved by the seaside, and that, almost without exception, *every one* is relieved by taking refuge in the mountains.

“On the east side of the White Mountains, Conway (but not always), Jackson, and the Glen House may be mentioned. The Flume House, the Profile, in the Franconia Notch. On the west side, Littleton, Whitefield, Dalton, Lancaster and Bethlehem are resorted to with good success, and they have this advantage over the great mountain houses, that board can be had for from eight to twelve dollars a week. Yet, if one's means will permit, we should commend the houses nearer to the mountains—the Waumbec, the Crawford, the Fabyan, and the Twin Mountain House.”

Thus speaks one of our most prominent men, who had been a sufferer from hay-fever or hay-asthma for many years. By going into the mountains annually to pass the season of attack, he has escaped it for the most part, and rejoices in his mountain remedy. We assure the reader that the Alleghany Mountains, the mountains of West Virginia, of Colorado, the Rocky Mountains, and the Sierra Nevada Mountains will prove equally efficacious in relieving a hay-fever victim, and may afford even greater variety in the way of scenery and other objects of interest.

There are no drug medicines of any sort which can do one any good in such disease. Hay-fever is purely of a ner-

vous type, and occurs only in persons who possess a certain special susceptibility of the nervous system, either hereditary or acquired. It is more common in men than women, and prevails largely among those of intellectual culture. The exciting cause of its appearance is now well ascertained to be the pollen of certain plants, such as the grasses, rye, wheat, oats, ragweed, Roman wormwood and fine dust in the air. The pollen of different plants excites it in different persons, but whatever cause produces it will produce it again in the same person. Hence it appears oftentimes with great regularity year after year, at seasons varying from May to October. The first symptoms are those of itching at the eyelids and nasal passages, followed by frequent sneezing and the discharge of a serous fluid. And to bring about the constitutional improvement that is requisite to anything like a cure one's life must be adjusted to a strictly hygienic routine. With better digestion, better blood, a stronger nerve condition will be acquired, and the spasmodic irritability of the nasal membrane, pharynx and larynx will disappear. If one can not go to the mountains to breathe their pure air, he can at least do his best to better his surroundings at home, and eat, sleep, work and exercise rationally.

BORN—GRADUATED—DIED.

THIS is the inscription on the tombstone of a young man who had only emerged from the school-room to fold his hands, close the tired eyes and enter into the everlasting sleep. How inexpressibly sad, and yet the life history of too many of our bright young men and women may be told in the same three words—“Born, graduated, died;” nor do we realize on first thought how much meaning they may embrace. The mind goes back to that supreme moment when the helpless infant is first

laid in a loving mother's arms, doubly precious because of its very helplessness. To most mothers at this time heaven seems only a little way off, and the heart is filled to overflowing with the completeness of joy. For a time all else is forgotten save that this priceless treasure has come into her life to bless and glorify it. But by and by the day dreams come, and as the child sleeps the mother looks lovingly at him and pictures to herself his future. 'Tis always a future full of brightness and joy to

himself, and through him to his family. Soon the little mind begins to expand, and the child shows wonderful brightness. The day dreams into which the father now enters expand correspondingly, and with pardonable pride, the parents feel that *their* boy is destined to future greatness, and they must do their part toward preparing him for it. He is early put into school and as time advances he, too, is fired with a zeal "to be and to do."

The parents are not alone in their efforts. The teacher does his part of course, but that is not all. It is often said there is no evil without its attendant good, but it may be said with some degree of truthfulness that there is no good without its attendant evil. In the schoolbooks and even the periodicals placed in his hands, he reads, (along with the dull boy for whom it is intended) how Elihu Burritt, the philanthropist, linguist, etc., was left fatherless, and, being entirely dependent upon himself, was apprenticed to a blacksmith and, while he earned his daily bread, secured a book in the chimney within reach of his eye and, in the end, masters over fifty different languages; how Nathaniel Bowditch, by combining study with work, rose from a common sailor to the first mathematical scholar of his age; how Benj. Franklin, with no educational advantages, entered a printing office as an apprentice, working by day and studying by night, becomes the editor; then steadily advances until he becomes a master spirit in literature and science; how James Watt, from only a toiling mechanic, kept thinking and thinking until, with his brain, he accomplished wonders, and completely revolutionized society; and so on, *ad finem*. At the same time it is impressed upon the mind of the youths of the present day that the examples thus set before them are worthy their following; that a high aim and hard work are the essentials necessary to achieve greatness. The dull boy reads, admires the

characters set before him, but very sensibly concludes that he can not become a Franklin or a George Washington, and he doesn't try. Not so, the bright boy; he feels that what others have attained, he is capable of doing, and applies himself with greater energy to his books, often working far into the night to perfect the lessons of the following day, thereby robbing both mind and body of its needed rest.

At last the day of triumph comes. He feels tired and worn out, possibly coughs a little, but he has been graduated with highest honors, and, after a little rest, will enter into his chosen profession, law, or medicine, or the ministry, or what not, and fulfil his greatest ambition.

But health does not return with rest, and a physician is consulted. "Nothing serious," "a little overwork," "he can bring him out all right." He swallows the medicines and still fails. Then the doctor advises a change of climate, and he leaves home and loved ones to go among entire strangers. Here, at last, the truth is forced upon him and, in too many cases, he occupies a grave in an unknown land, or his body is returned to his heart-broken parents, and the story is done. All the hopes and aspirations of himself and friends, his years of ceaseless toil and preparation and final disappointment when he finds that he must lay down his life work, ere yet it is begun, are summed up to read on his monument: "Born—Graduated—Died"—with the respective dates following.

What must the mother's feelings be when she compares the end with the beginning; the glad, happy time when he came into her life with this most bitter one, when even God's love seems forever shut out, and her poor bleeding heart feels that it can never lift itself into the light of day.

This is no idle picture, but a fact that impresses itself very forcibly on the mind of one who has spent several years in a popular southern resort for invalids,

where they congregate from Canada to Texas ; hardly a state in the Union that is not represented.

The majority are young, and, while there are other causes, a very important one is taxing the brain beyond what the body is able to endure. One who comes in contact with so much of misery and heartache—where, in time, we acquire the feeling that the well ones are the exception, and not the sick—can not help feeling impelled to cry out against it until parents realize that the *body must* be properly developed in order to sustain severe mental labor without injury. Why not let our children *be* children until they are something more?

Give them an abundance of good, wholesome food, a happy, joyous, out-of-door life—even though we have to give up business and go to the country to do it—and all the sleep they want. If a child wants to sleep till noon, why let him. When nature has completed her work of restoration, he will waken of his own accord. The mind may improve for years after the body is done growing; therefore, let the physical development be accounted of first importance, and, if need be, let the mental occupy the second place.

Many feel that because a child is not in school it necessarily follows that he is learning nothing. This is a mistake. They seem to have lost sight of the fact that the little bundle of humanity gains complete control over the muscles, so that from a state of utter helplessness, the feet carry him where he wills, the hands perform wonderful things, the ears learn to distinguish sounds, the eyes to distinguish objects, and the tongue acquires the use of one of the most difficult languages. Surely all this, with the multiplicity of beauties and wonders which nature continuously unfolds to his understanding, should be enough to require of the brain during the first ten years of its existence. Follow the example of Franklin, Burritt, Watt and Bowditch in physical development, and if the ability to achieve greatness is there, it will come to the surface and make itself felt, just as it did in their cases. Education is a good thing, but see to it that it has a firm foundation on which to build, lest the structure fall, a mass of ruins, extinguishing the light which otherwise might have shone steadily on, diffusing its soft radiance all along your pathway—but now leaving you only darkness and desolation. M. C. F.

FAITH AND HOPE AS MEDICINAL ELEMENTS.

IN many essential respects the so-called “Faith cure” is far from new, but has had its relation to every form of medical treatment. When a sick man takes potion or powder from his physician he does so with confidence that it will benefit him, and he expects such a result. This is an expression of faith that may be said to be a necessary factor in the production of a cure. A writer in the Cincinnati *Lancet* analyzes the parts performed by faith and hope in the following manner—

Faith is an extrinsic element, while hope is an intrinsic one. The physician visits the sick patient, and after the

proper examination prescribes certain remedies, or gives orders for certain medicines to be used. But at the same time there is something more to be taken into consideration than the mere mechanical act of examination and giving directions. There must be a *something* in the physician that will inspire confidence in the patient; unless that *something* does exist, his advice and his medicine are both liable to be inert.

Faith on the part of the patient makes him have confidence in his medical attendant. Faith says that the doctor has the ability to correctly diagnose and understand the nature of the malady.

Faith says that the physician knows what remedies are indicated, and that what is necessary is, to take the medicine that he has prescribed and follow the directions that he has given.

Then comes the desire to obtain relief with the expectation of receiving it, which we call hope. Hope plays an important part. It does not stop at the point where faith ceases, but after embodying the latter looks forward to the result. It is the reasoning process which takes place in the mind of the patient. Hope is the bloom of youth that dreams of happiness in the future. It looks forward to the time when the disease shall have been rooted from the body and all of the organs placed in a normal condition. Hope is like spring, that gives us the verdure and the lilies as a compensation for the frosts of winter. It is the hope expressed to-day that the condition will be improved on the morrow that fortifies the patient against his malady and gives him encouragement. It places the system in the best condition to resist disease, or to throw it off when once contracted. Hope is the amaranthine flower that buoys up the despondent feelings of the sick and distressed.

There must be an active condition of the cellular life, which is dependent, to a certain extent, upon the condition of the mind. The state of the patient's feelings is more or less influenced by the confidence which he has in his physician. When both faith and hope are exercised favorably, then we have a new stimulant given to the Lilliputian life within the human body. This activity of the more minute structures gives us the key to the amount of resistance that will be offered by the system against the invasion of disease.

If, however, the stimulating effect of faith and hope is wanting, then we have quite a different aspect produced. The system is at the mercy of the disease, and is in a condition to offer the smallest amount of resistance. The inner life is wanting in activity and the mind is depressed. As a natural result, the patient is downcast and despondent. He looks only upon the dark side of the picture and says, Medicine will do no good, and it is useless for me to take it. He does not realize that hope is the silver lining on the dark cloud that is seems about to overwhelm him.



AS YE SOW SO SHALL YE REAP.

I HAVE been for some time a subscriber to the *Country Gentleman*, in my opinion the best of agricultural papers, which through its editorials and the communications of wide-awake correspondents stirs up the farmer to do better and more thorough work, and through its lady correspondents—Aunt Addies, Aunt Chloes, Susan Busybees and a score of others—instruct farmers' wives in all the mysteries of that pestilent conglomeration of lard, sugar, eggs, butter, soda, cream of tartar and flour, mixed in different proportions to give names to hundreds of different kinds of cake, and as many more kinds of pies and puddings, the less of any of which any

one eats the better he will be in health. It is surprising that editors, will in this, the latter part of the nineteenth century, allow their columns to be filled with such—worse than rubbish.

In one of the issues of that paper for January, 1875, appeared an article by one of these lady correspondents, telling her sisters how much she had been troubled to get that variety of food for breakfasts in her family that she deemed desirable, and how she had finally hit upon some additions to her bill of fare for that meal which her people all liked, and which she thought so well of, that she felt it to be her duty to make her discovery known to others. Well, reader

mine, if you had been a listener to the lectures of Sylvester Graham nearly sixty years ago, as I was, and had been converted by him, and had been a student and tolerable observer of the laws of hygiene ever since, you would probably have laughed in your sleeve, as I did, when I read her recommendation, which was to add to this breakfast bill of fare—oh, tell it not in Gath!—*mince pies and doughnuts!!* I pictured to myself the consequences which must inevitably result from such feeding; and

in only ten short years, behold! we have them fruitfully described by the same hand. A year or so ago there appeared in the same paper another article, by the same hand, in which she details at considerable length her *suffering from dyspepsia!* She gives in this article her method of dieting for relief from that terrible disease, and this for a wonder is both sensible and appropriate. What a pity she could not have *learned to live*, without paying so fearful a price for the knowledge!
J. S. R.

NOTES IN SCIENCE AND INDUSTRY.

The Scientific Spirit.—[Address at the opening of the 23d annual session of the American Institute of Phrenology, by Professor E. P. THWING, M. D.] The temper with which one enters upon his studies is a prophecy of his success. Let me, in this brief greeting urge you, fellow students to cultivate the true scientific spirit. Do you ask its characteristics? This instinct or sense is not so much a special faculty as it is the ennobled life of all the faculties. Yet, as the lamented Dr. George M. Beard remarked: "It is practically the new development of a new sense in man. This spirit enables its possessor to seek for truth through the intellect alone, without the interference of the emotions; to utterly divorce the intellect and the feelings so that each may pursue its own course, as the engine is switched off from the train entering the station. It is this sense that reverses the usual operation of the faculties and makes the thought the father to the wish. It is this sense that makes the high maturity of the mind and which, indeed, if a man have not, he can not enter the kingdom of science. It is the development of this new sense, the highest of which the human intellect is capable, more than any special discoveries or inventions that is now overturning all the philosophy of the world. Delusions in their dying enrich the soil in which new ideas take root and whence they draw their sustenance and life. Thus it is, that error is so often the parent of wisdom, and delusions, by the very wildness of their folly, become the unconscious pioneers of truth and leaders of science." A truly scientific spirit is vigilant, exacting, at the

same time, candid and catholic. The field of research is wide. An expert in one department may not be an authority in another. One science ought not to take a hostile attitude towards another. The sciences of biology, psychology and medicine, for example, are coming every year into closer unity. The scientific spirit is also patient, cautious and modest. It does not generalize from a few data, as for instance, in the mild guesses of biologists, as to the age of man and the planet. Prof. Winchell says that some have shut their eyes and jumped into an abyss of millions of years in guessing the age of the earth. More exact data and methods give three million as the incrustated age of the earth, and six thousand as the age of the inhabited planet, since the last glacial period. Thus hasty conclusions from unverified data are cancelled. True science is modest. I was struck with the ejaculation of an eminent medical man the other day, as we were returning from that "Parliament of Medicine" the Bristol Medical Association. He had read a paper before that august gathering of a thousand physicians from England, France, Germany, America, Africa, Japan and the isles of the sea. This gray haired scientist had had thirty year's experience on both sides the Atlantic, as well as wide culture and the enriching influence of travel and good society; he had just been enjoying the hospitality of a Marquis; he had learned much and taught many, yet in course of conversation with me he stopped and exclaimed: "I feel like a little child," so wide was the continent of truth whose far-off horizon continually eluded his eager gaze. The scientific spirit,

while bold and adventuresome, is humble and modest, for at best we know in part and prophecy in part. Let your studies be begun, continued and ended in this temper of mind, and you will win certain and triumphant success.

Rainfall and Fires.—Analysis shows that during the six months having the smallest rainfalls, 4 per cent. more fires occurred than during the months having larger rainfalls. Moreover, the losses during the former period exceeded by 17 per cent. the losses during the second period, which obviously demonstrates that fires are both more numerous and destructive during a dry epoch than during a moist one. If a similar comparison be made in sections for which meteorological reports are regularly issued, it will be observed that the fire losses by seasons follow inversely the inches of rainfall by eight cases out of ten. Thus the average loss by seasons in the Middle Atlantic States, and California, in the south Atlantic States, and in the Northwest, has uniformly followed the average rainfall. In other sections now and then an exception has occurred, but apparently this fundamental law holds true, viz.: Other things being equal, that the fire loss of a locality for any considerable period varies inversely with the rainfall. The larger the area and the longer the period covered, with the more certainty and accuracy can the influence be traced.—*Chronicle Fire Tables*, 1886.

Barbados.—The island of Barbados is probably the most densely populated part of the earth. This island, with an area of 106,600 acres, contains a population of over 175,000 souls, that is to say, an average of no less than 1,054 people to each of its 166 square miles of territory. The Chinese province of Keang-su, which was at one time ignorantly imagined to be the most uncomfortably crowded district under the sun, contains but 850 moon-eyed Celestials to the square mile, while East Flanders, in Belgium, the most thickly populated neighborhood in Europe, can boast of only 705 inhabitants to the square mile. Coming nearer home, Westchester Co., New York, with a territory three times as large, has only four-sevenths as many people as are packed upon this thronged, man-ridden Caribbee island. If the Empire state were as thickly settled as Barbados, it would boast a population of 60,000,000. Of the

175,000 souls in this island, 9 per cent. are whites and 91 per cent. are blacks or of mixed blood.

How Man Improves the Horse's Hoof.—One who does not believe much in shoeing the horse says:

The Creator has taken the greatest care to make the whole hoof as light as possible. "Happy thought," says man, "Let us hang a pound or so on each hoof and make the horse waste his strength in lifting it."

He has made the wall exceedingly strong. "Happy thought! Let us weaken it by cutting it away."

He has made this wall nearly as hard as iron. "Happy thought! Let us soften it by 'stopping.'"

He has furnished the hoof with an elastic pad, called the "frog," so as to prevent any jar when the horse steps. "Happy thought! Let us cut away the pad and make the horse's weight come upon a ring of iron."

Again, the sole of the hoof has been formed archwise of successive layers of exceedingly hard horn. It bids defiance to hard and sharp-edged objects.

So the sole inspires man with another happy thought: "Let us pare it so thin that it not only can not resist the pressure of the horse's weight upon a stone, but that it yields to the pressure of the human thumb."

The coronary ring, from which the fibers of the wall are secreted, is guarded by a pent-house of hair which causes wet to shoot off as it does from the eaves of a house. "Happy thought! Let us snip away the hair and let the water make its way into the coronary ring."

So, after working his sweet will upon the hoof, man wonders at its weakness and lays down the stupid axiom that "one horse can wear out four sets of legs," which is equivalent to saying the Creator did not know how to make a horse.

The Law as to Party Walls.—A party wall in law is the wall dividing lands of different proprietors, used in common for the support of structures on both sides. In common law an owner who erects a wall for his own buildings, which is capable of being used by an adjoining proprietor, can not compel such proprietor, when he shall build next to it, to pay for any portion of the cost of such wall. On the other hand, the adjoining proprietor has no right to

make any use of such wall without consent of the owner, and the consequence may be the erection of two walls side by side, when one would answer all purposes. This convenience is often secured by an agreement to erect a wall for common use, one-half on each other's land, the parties to divide the expense; if only one is to build at the time, he gets a return from the other party of half what it costs him. Under such an agreement, each has an easement in the land of the other while the wall stands, and this accompanies the title and descent. But if the wall is destroyed by decay or accident, the easement is gone, unless by a deed such contingency is provided for. Repairs to party walls are to be borne equally; but if one has occasion to strengthen or improve them for a more extensive building than was at first contemplated, he cannot compel the other to divide the expense with him. In some States there are statutes regulating the rights in party walls, and one may undoubtedly acquire rights by prescription on a wall built by another, which he has long been allowed to use for the support of his own structure.—*Building.*

The Growth of Religions.—The following table shows the growth of the different religions of the world in the last century, which includes practically the whole of the era of modern missions. The figures of 1784 are from Dr. Carey's "Enquiry into the state of the Heathen World":

	1784.	1884.	per cent. increase.
Jews	6,000,000	8,000,000	33
Mohammedans	130,000,000	172,000,000	32
Pagans	420,000,000	820,000,000	95
Roman Church	100,000,000	195,000,000	95
Eastern Church	30,000,000	85,000,000	183
Reformed Christians (Protestants)	44,000,000	161,000,000	263
Pop. of the world . .	781,000,000	1,440,000,000	

The Protestant Missionary Societies of the world number about one hundred, which raise nearly \$12,000,000 annually for missionary purposes, of which about \$6,000,000 is from Great Britain, \$3,000,000 from America, and the remainder from the continent of Europe and other sources. The ordained Missionaries number 2,900, and all the European and American laborers about 5 000; while 30,000 native converts of different lands are engaged in Christian missionary work. It will be observed that

those not Christians still outnumber the Christians more than two to one: the non-Christians being 1,000,000,000; the Christians 444,000,000.

Drinking Habits in Germany.—Dr. Baer, the chief physician of the Plotzensee Prison, has published some interesting statistics concerning drinking habits in Germany which show that drunkenness is very prevalent and rapidly increasing in that country. In 1880 there were about 200,000 places in Prussia alone where "hard" liquors were sold, against less than 120,000 in 1869. Ten years ago, on an average every adult German was in the habit of drinking four glasses of alcoholic liquors every day, and the average is much higher now, Dr. Baer's investigations show that the use of spirits has almost gone out of fashion among the upper and well-to-do classes, so that the drinking habit is largely confined to artisans and workingmen who can least afford it, and to whom it is most fatal. It is pleasant to know, however, that as yet German women are comparatively free from this vice. These facts will put upon the advocates of light beers as an aid to temperance the necessity of explaining how it is that drunkenness is increasing in the country where beer is the national drink.

A Phenomenon in Quartz.—Some silicious pebbles which are quite numerous in the quarternary gravels of the Loing valley, France, have been described by Meunier. These stones—about an inch and a half in diameter—are remarkable for being hollow, and enclosing liquid water, together frequently with a loose stony nucleus. Meunier supposes that the water must have penetrated the pebbles through their minute pores, for not a sign of a crack can be seen, even by the aid of a strong glass.

To Mend Rubber Cloth.—Any one who has had the misfortune to injure the coating of a rubber umbrella will be glad to know that it is notwithout remedy. A preparation of dammar varnish and asphaltum in about equal quantities, with a little turpentine, will make an easily applied coating, which makes the umbrella as good as new again. Spots on gossamer coats and cloaks can be covered with this also.



FOWLER & WELLS COMPANY, *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
OCTOBER, 1886.

SCIENTIFIC CANDOR.

WE were, one evening, in the library of a friend who was a physician of considerable reputation. The conversation turned on the relation of physical states to mental expression, and in answer to certain questions, we explained the phrenological theories of the influence of temperament. While we were speaking a gentleman, also a physician, whom I did not know, came in, and after saluting my friend, passed into the professional office which adjoined the library, leaving the door between open. Fifteen or twenty minutes later, we rose to go, when our friend called his other visitor into the room and introduced us. The first remark of our new acquaintance was: "I have been listening with some interest to your remarks. They are quite new to me. I had always supposed phrenology to be a mixture of assumptions with a few ancient maxims about the face being the mirror of the soul, and its practitioners for the most part men who are good observers of human nature, and conversant with the weaker side of men especially. You put the matter in a very different light, and I can not

dispute the high value of the facts that you have presented. I feel myself your debtor now, and if you can give me another lesson some time before long, I shall be glad to have it."

Our reply was: "what I have said, sir, is simply the truth as revealed to the careful observer of nature; facts that have been confirmed hundreds of times. Whether or not you would accord them the character of scientific it seems to me that their merit and usefulness are a sufficient warrant for acceptance."

Our friend rejoined—"When we get the truth and understand it what more do we need? If I am satisfied with the facts shown in a given case I am willing to take the risk of their scientific merit. Science is founded on truth, and if people in their attempted presentation of a truth distort and misapply it that truth will probably suffer in the estimation of some—but it is none the less true after all."

The imagination, man's humors, dislikes and wants play havoc with the truth in its practical application. One has said "All along the history of culture from savages to modern civilization men have imagined what ought to be and then tried to prove it true."

Of no science can this be more truly said than that of mental science. The utmost range of speculation has been swept in the discussion of theories good and bad, and it would appear as if most thinkers valued the fanciful more than the positive; preferred to soar among the clouds rather than to walk on the solid ground. The great obstacle that phrenology encountered at the first was the metaphysician who could not surrender the old canons of mental philosophy,

although he knew their uncertainty. There was too much of material definiteness, too much simplicity in the formulas of Spurzheim. And when driven into a corner by the clear logic of facts, what did the proud metaphysician but humble himself to ask the aid of the old anatomists that the teachers of the new facts might be restrained in their progress. Now, however, we find the metaphysician who would command respect looking to the data of physiology for the basis of his theory, and often hesitating as to the source of certain phenomena, whether it is of a physical or mental character; so much has he learned of the intimate association of mind with physical conditions.

There are truths that the candid mind feels compelled to believe, or doubt the value and integrity of the best sides of human life. Science may look at them with a cynical air, because science can not reduce or analyze them in its laboratory, and find how many molecules of carbon, hydrogen, sodium, phosphorus, calcium, etc., they contain, and what peculiar markings they show with polarized light. But science, when true to itself, acknowledges the effect of these truths as none the less positive and influential in the moral and physical action of men. Tyndall, searching and cynical as he is in analysis of opinions that savor of presumption and dogma, is frank in his acknowledgment of the true, although he cannot point to tangible facts that show its origin and development. He says in one place, "While accepting fearlessly the facts of materialism, . . . I bow my head in the dust before the mystery of mind, which has hitherto defied its own penetrative

power, and which may utterly resolve itself into a demonstrable impossibility of self-penetration." Again, "The passage from the physics of the brain to the corresponding facts of consciousness is *inconceivable* as a result of mechanics. . . . The problem of the connection of body and soul is as insoluble in its modern form as it was in pre-scientific ages."

The true scientist is no double meaning, evasive sophist, but fair in the actual knowledgment of his ignorance, and tolerant of other men's opinions. He recognizes the breadth and depth of the great ocean of nature, and the reaches of infinite space in human nature. The earnest student has his sympathy—whatever the field in which he delves.

ANOTHER THOUGHT ON THE LABOR TROUBLES.

One of the writers of the day in reviewing the labor troubles remarks that "the most urgent want of labor is self-control." He could have gone farther and said, in all departments of human life, wherever contest leads to violent and injurious outbreaks the most urgent want is self-control. Intelligent men, as well as ignorant, are in a time of excitement too easily controlled by their selfish and passional forces. The masses of men engaged in mechanical employments are easily aroused to a pitch of intemperate excitement when they fear the loss of their means of support. Thus, they are made the tools of men of powerful or magnetic influence, who are more athirst for domination than zealous for the welfare of those they lead. Granted that a class of workers have reason to complain against a sys-

tem in vogue with their employers; granted that they are warranted in refusing to work, and in endeavoring to prevent their employers from securing help from outside sources; there is a legitimate range to action of the latter kind, and its effect may be of material benefit to both sides. But when the sentiments of justice, kindness, respect for order and decency, are overcome by covetousness, envy, hate, and a vague desire to revenge fancied or real wrongs is formed into a turbulent demand for redress, by blatant agitators, then reason and self-control go and we have a raging crowd of unhappy men who do not know what they are about; and who find at the last, when their excitement has subsided, that they have lost, not gained.

Pardon me, my industrious reader, if I refer to one element in these labor outbreaks that tends more than anything else to disturb the mental equilibrium of those engaged, and to make a strike, however just, a failure. That element is liquor drinking. I think that if the dramshop could be kept out of the way, the case in which a strike would have a violent issue would be as rare as dogwood blossoms in March. It is the heating, exciting drink that arouses the selfish instincts and passional elements in the base of the brain to excessive activity, blunts the intellect and stupefies the moral sentiment, in men who in a cool, self-conscious state would never think of doing violence to any. Oh, if we could only put the whisky bottle and lager-bier keg beyond the reach of the workingman, how much more competent he would be to consider the real questions of his relations to capital, and to society,

and how much more power he would have as a political force. To the intelligent, self-controlling working men may belong the issues of the day. Organized well, prudent in their action, determined, yet fair, in their demands, what could they not obtain from the State; what would not society give them for their true advancement?

THEY SHOULD BE KEPT DOWN!

Conservatism has lately spoken in terms of authority on the subject of the higher education of women. This time it is the British Medical Association that utters what "ought to be," according to its notion of the suitable. At the meeting held this year at Brighton the newly elected President, Dr. Withers Moore, devoted the larger part of his address to the consideration of woman's claim to equality with men in educational privileges and in the prosecution of such employments as she might choose, and he is reported to have said that "it is not for the good of the human race considered as progressive that women should be freed from the restraints which law and custom had imposed upon them, and should not receive an education intended to prepare them for the exercise of brain-power in competition with men. He was persuaded that neither the preliminary training for such competitive work, nor the subsequent practice of it in the actual strife and struggle for existence could fail to have upon women the effect of more or less (and rather more than less) indisposing them towards and incapacitating them for their own functions, which, as the issue of the original differentiation of the

sexes, nature has assigned to them in the maintenance and progressive improvement of the human race for bettering the breed of men." Dr. Moore in saying this probably echoed the sentiment of the rank and file of British practitioners, as represented in the Association. We will not question his sincerity, or his motives; he probably thinks that the welfare of British society is endangered by the desire of many British women to learn more of science and art and to know more about themselves. We will not say that he and his colleagues of the Association have the least fear that women by entering the profession of medicine will affect their personal interests. It does seem to us, however, that the view of Dr. Moore, as quoted, implies a low estimate of woman as a factor in society, according to her *a* plane of action scarcely above that of the animal. She must be restrained, limited to a certain stage of mental development, because, if she rises above that she may be less competent to perform—what? the functions of *breeding*. The female of human kind lives for maternity! If this is the prevailing sentiment of the intelligent men of England we do not wonder at the recent exposures of gross immorality among the higher classes there.

But in the United States, with its fresher civilization, we do not find that women, who are educated for physicians are in any wise impaired for wifehood; and if they have children, are in any way inferior to other mothers. On the contrary, we know certain woman-doctors, who unite excellence of scientific capacity with admirable motherhood.

We have entertained the notion that a mother could not be *too* intelligent, and therefore, have believed that women should be well instructed in the practical affairs of life; and to guard against the misfortunes that often cut off the support of a wife and mother, when dependent upon others, they should be trained in some branch of industry or art, so that when thrown upon their own resources they will have a positive help in themselves. We could name a dozen women who in the hour of need have shown themselves competent to take care of husband and children, because of their "higher education."

British women of the upper classes correspond to a large class, we might say, the general mass of our native born women of the cities and large towns, so far as education goes, but from their greater restraint and subjection to custom are much less competent to take care of themselves than the American woman. We do not hear of societies here for the assistance of "gentlewomen in reduced circumstances" as they do in England, where it has been heretofore considered improper for a "lady" to work for her living in any public capacity. We have no sympathy for the barbaric notion that woman is not fitted for high mental training—for we believe that the proper, symmetrical education of her mind is in every way conducive to her happiness and the welfare of society. The true man desires a companion as well as a sexual mate. And he finds his want in the woman of a well-matured brain, with its mental expressions rounded and elevated by culture, not in the

merely sensuous, capricious, unformed, unaspiring and uninspiring kitchen drudge or listless exhibitor of the costumer's art.

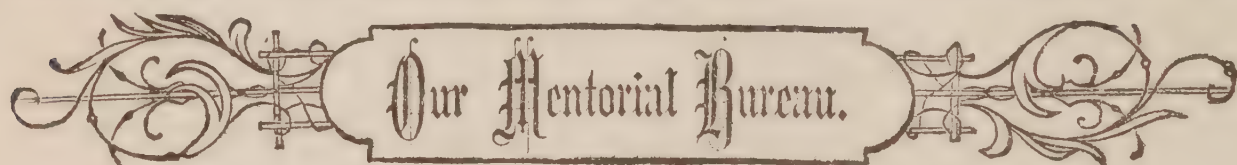
PHRENOLOGY AND ITS CRITICS.—An article is being copied from the *Philadelphia Inquirer* on the subject of Phrenology, in which it is sought to show that the science is going or has gone to decay. The writer classes it with Desbarolles' palmistry, and seeks to bury them in the same grave. Any student of Phrenology will see at a glance that the writer is but a flippant ignoramus and has little knowledge either of Phrenological literature or public sentiment.

Nevertheless, several of our friends have cut out the article referred to and sent it to us asking us to reply to it.

We beg to refer our friends who have

thus kindly sent us the article and all others to the May number of the *Journal* page 293, June number page 349, and the February number page, 117 for 1886; also to the article by Rev. Wm. Hyde, of Cambridge, in October, November and December, 1885. All of these show that we have seen and given attention to the subject in question.

It is amusing to witness the zeal of some young writers who will quote objections which their grandfathers raised in respect to Phenology sixty years ago, and which were then thoroughly refuted, and to-day would not be thought of by scientific physiologists. If these flippant, careless writers would consult their caprices and prejudices less, and the authorities on cerebral physiology more, we should have much less frequent occasion to note their random sneers.



To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

ON THE LABOR QUESTION.—S. N. H., Cal.—You have quite misconstrued the nature of our reasoning in the article entitled, "Idealism in Public Disorder." The point we sought to impress is, that the fanatics who avail themselves of the organized movements of the labor unions for increased wages, or reduced time, to attempt deeds of lawlessness and crime, usually have a creed, or "bill of rights," that is Utopian,

and when they proceed to put it in force, are found at war not only with the laws and usages of society, but self-constituted agents of rapine and anarchy. They talk of rights and justice, and then go on to exhibit the most brutal disregard of right and justice. All classes suffer, the poor as well as the rich, from their outrages. We have always acknowledged ourselves on the side of the workingman in his struggle upward, and whenever he gained a single step we have rejoiced, but whenever he was imprudent, and resorted to means that interfered, not only with his employers, but affected disastrously the community in general, we were sorry, because we knew that he was taking a back step and losing ground.

The *principle* of strikes is just, the workingmen have the right to organize for their protection, and to secure a larger share in the profits of their labor; but wholesale condemnation of the rich and of capitalists is unreasonable and unwarrantable. A busy commercial people is largely dominated by one idea—the poor as well as the rich entertain it—that of getting money, making a fortune. The laborer of to-day who looks with envious eyes upon the man of wealth may be rich ten years hence, and he will be found, most probably, regarding with angry eye the endeavor of those who were once his mates to compel him to divide with them in wages a larger percentage of his profits. It should not be forgotten that the balance of power, the control of public affairs, lies with the working masses, and if they did not to so great extent allow themselves to be the tools of political bosses and pot-house tricksters, they could in a few years' time bring about a greatly improved state of affairs for themselves and society in general, through the election of men to office who will represent them fairly and, by the establishment of good laws, render the interworkings of capital and labor, or employers and employed, equitable and harmonious. It is not wise to indulge in sentimental tirades about the exactions of wealth, and the sorrows of the poor; better that we consider the situation of the working masses dispassionately and scientifically, and thus get at the bottom causes of what is wrong in it. Philanthropy, without positive knowledge and a definite purpose, is more likely to make matters worse than better. If you or any reader have a well-formed plan for social improvement, we

shall be glad to publish it. What the world wants is sound, practical counsel.

BODY-GROWTH.—D. H. D.—Bodily characteristics, such as size, complexion, height, etc., are for the most part conformable to the laws of heredity. One whose ancestors generally, on both sides, are short, can not expect to attain to a height above the average. We think, however, that carefully methodized exercises that have the tendency to lengthen the bones, if persisted in, the health meanwhile being properly sustained, would, in the course of a few years, increase the stature of a young man an inch or more. Such exercises as walking in military position, climbing a rope or vertical pole—with the legs extended, or anything that exerts a direct pull on the spinal column and legs may be of service to the short man to whom an inch would be a boon. If the person is over twenty, but little result is to be expected from such exercises. At least, we should not advise them, although cases of spontaneous body growth after twenty are recorded. It is not unusual for men who were thin in flesh for many years to gain greatly in weight—become stout in fact. An easy life, with good digestion, or even a busy life, with good digestion and the use of such food as contributes to fat development, will make one in time fuller in form.

TEMPERAMENT IN MARRIAGE.—G. S. M.—What is needed is difference in temperament with good health for a harmonious marriage, and it matters little what the temperaments are in the candidates for the bond celestial, provided that they are manifestly unlike. Of course it would be well for the woman to have a well marked viial temperament, and in the man we always like to see a good expression of the motive element. If you will read Jacques on "Temperament," or the recent book "Heads and Faces" you will find it to contain useful information such as you require.

A SPELL ON HER.—I. E.—We can not give you the information you ask; and it is not likely that a "clairvoyant" would go so far unless he or she were paid more for the trouble than you would care to give. Perhaps if you were to consult a good physician you would find the cause of the poor woman's "spell" to be over-strained and broken nerves; for which, rest, nutrition, and other hygienic conditions would be the best treatment.

BOYCOTT.—I. H.—This term is derived from the name of the man, Capt. Boycott, on whom the practice was first tried in Ireland. On account of his political and social attitude the Irish League leaders determined to try to destroy his business and forbade the people of his town to patronize him. He was cut off from social intercourse. No man would buy of him, or sell to him, or have dealings of any kind with him. The result satisfied the leaders, and the verb “to boycott” became incorporated in the language.

HYPNOTISM.—M. S. Y.—This word is from the Greek, meaning sleep, and relates to the artificial process of putting persons to sleep or in a trance by passes, manipulations, etc. the terms magnetism, mesmerism, “psychology” were formerly used, but now, scientific men think that hypnotism better expresses the methods.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

Difficulties.—Difficulties are met with in every walk of life, and though they cause a great many heart-aches, there is no doubt that they are of great benefit in developing and training character. We do not go so far as to say that hardship makes the hero, but there is something in the character of every successful man that would not, could not be there were it not for the many difficulties he has met and conquered. A man may be a hero in thought without running this gauntlet of circumstances, but in act and deed never until he has seen and conquered. A giant intellect is invisible to the world till trained by this, the severest of masters, it is enabled to open the eyes of nations to its greatness. From the time a man begins his first efforts for self-support or usefulness he takes hardly a step in advance without having to cut a niche as it were in the solid rock, in which to place his foot. Every step taken, every difficulty overcome increases the capital, which, when sufficiently augmented, eventually places its possessor in the front rank, and enables him to make the best of every contingency. Though ad-

verse circumstances will not of themselves make a man successful, no one ever attained success without first having his character moulded and perfected by actual contact with and victory over difficulties. They constitute the refinery through which all have to pass before they become successful; as wheat can not be made into bread before passing through a mill; so a man can not be successful in any calling until he has been through the mill of circumstances, and shows to the world his ability to meet and conquer. All men do not have the same difficulties to overcome before reaching their goal, but all have the gauntlet to run be the lashings more or less frequent. It has been said that “difficulties are blessings in disguise,” and this is to a great extent true. As each difficulty is a round in the ladder, when surmounted it places its conqueror that much nearer the top, and prepares him to take the next step which he would not have been prepared to take only for the experience and strength of character gained in the previous struggle. Many and severe are the wounds we receive in these battles with adversity, but they will all heal, and leave only the scars, as trophies of victory; and we may well be proud of these scars as they act in the double capacity of guide and certificate of character. All may not become heroes but all may be heroic. And in whatever walk of life duty calls us our motto should be, “Onward and Upward” through storm and sunshine. As we advance on our march, difficulties will array themselves before us thick and fast; but let us not be afraid to face them, for nine out of every ten will vanish when the first determined effort is made to overcome. More men sink under the trials of life from lack of courage to cope with them than from any want of intellectuality; and even genius itself will not rise above the common level without the courage to pass through the crucial test of adverse circumstances. “Every man is the builder of his own fortune,” and circumstances are the materials out of which he must build. God has surrounded us with these raw materials and bids us work, work for the present, the future and heaven. Brave is he and heroic who stands by the helm through thick and thin and guides his bark over the stormy sea of life.

An Illustration.—EDITOR OF PHRENOLOGICAL JOURNAL.—Conversation turned upon the science of Phrenology one day not long since, when my friend, a very intelligent lady, remarked that her brother had an experience which most remarkably proved the truth of that science. The family, I knew, were, as a whole, cultured and intellectual, and so, questioning her concerning the early history of this particular member of it, I learned that he, in his boyhood and youth, had evinced no special taste for books, had a low, though rather broad forehead, and was considered dull rather than otherwise. When about the age of seventeen years, some circumstance which she did not give, tended to arouse his dormant energies. He began to study, and took such a course as would particularly develop his reasoning faculties—law being the principal one. In the course of a few months the head began to develop manifestly over either eye, somewhat about midway of the altitude of the forehead. These “horns,” as the family playfully called them, grew and broadened, until the space below them and the eyes, and also the center of the forehead, appeared, by contrast, to be depressed. Later on his forehead filled more evenly, until now, in middle life, it is quite smoothly rounded, and reasonably broad and high. His perceptive never were developed in the same proportion with his reflectives, but that is the case with many of us who start evenly as to natural faculties. Eyes we have, but they do not see a tithe of what lies spread before them in spiritual and material realms. I bid you God speed in your efforts to teach mankind to read aright the legend over the gateway of the Greek oracle, “Know thyself.”

H. L. M.

WISDOM.

“Think truly, and thy thought
Shall be a fruitful seed.”

The veil which covers the face of futurity is woven by the hand of Mercy.—*Bulwer.*

Society is but one great family, What, then, is this narrow selfishness in us, but relationship remembered, against relationship forgot?

The Arab in the desert, dividing his last handful of dried dates and his few remaining drops of water with a wandering brother, represents the highest type of hospitality.

He that has no native wit of his own, but has simply studied much, knows the meaning of his books no more than the ladle the taste of the broth—*Hindu (Mahabharata).*

MIRTH.

“A little nonsense now and then,
Is relished by the wisest men.”

“He called me an ass,” exclaimed an over-dressed dude. “Well, you ain’t one,” replied a companion; “you’re only a clothes-horse.”

Angry father at dinner: “You children turn up your noses at everything on the table. When I was a boy I was glad to get enough dry bread to eat.” Little Tom, “I say, pa, you are having a much better time of it now you are living with us, ain’t you?”

A family that advertised for a girl “to do light housework” received a letter from an applicant who said her health demanded sea air and asked to know where the light-house was situated.

Wife—“What are you sitting by that open window for?”

Husband.—“That homeopathic doctor across the way claims that he can cure the hardest kind of a cold in two days. I bet him \$10 he can’t. I am going to win his money.”



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

THE CAUSE AND CURE OF DISEASE.—Offices of Electricity in the Origin and Removal of the Disorders and Injuries of the Organization of the Human Body. By H. B. Philbrook, Editor of Problems of Nature. Published by the Author. New York.

An extraordinary book—covering in less than 300 pages the whole theory and practice of medicine as formulated by the author. “Diseases” according to him “are weaknesses that are due to a deficiency of the

almighty influence called electricity in the body. A want of this power can exist and the body be wholly without disease or destruction of a cell or tissue. The cause of this want is the same as that of a disease—a bad habit or bad practice. All so-called malarial diseases are of this character, and all of them are produced solely by a want of electricity in the atmosphere." Thus we have the cause of the many hundred forms of constitutional disturbance and organic lesion in a nutshell, and the remedies suggested are of a corresponding simplicity: "A plenty of alcohol and a box of common soda are all the preparations for a disease a family can want." What a herald Mr. Philbrook is of the good time coming when hygiene will be the grand principle in all medical treatment, and of the time when the cathartics, anodynes, caustics of the pharmacist will be no more known!

The book is original in style, matter, treatment, and not without interest to the conservative who believes that the common method of treating disease is founded upon the wisdom of centuries and therefore not to be refuted by the utterances of a single, bold pioneer who flings to the world a challenge like that of our author especially when he says that "a particle of assistance has not been obtained from a physician or medical works in the preparation of this treatise."

THE THREE SYSTEMS OF LIFE INSURANCE, embracing I. The Level Premium System. II. Natural Premium. III. The Assessment System.—By Marion Tabor. Published by the Bureau of Life Insurance Information; Chicago.

Prepared by an Insurance man, this book affords information that appears to be of an impartial as well as practical character. The field of Life Insurance has grown enormously in this country, and some corporations that have been prudently managed, and that in a basis of life expectancy a hundred years old, have rolled up surplus earnings from twenty to sixty millions of dollars; thus showing the great gains desirable from a kind of speculation in human life. Mr. Tabor points out some of the features of the business that make it so profitable, and is, we think quite fair in his treatment of the latter day phase of life insurance—the "mutual benefit" or assessment plan. This, the reader knows, was at first vigorously attacked by several of the old surplus-bloated companies because it cut into their business, but the result was that the corporations were defeated and compelled to modify their rates, and thus the cost of insurance was generally reduced. A great many questions that have been asked by candidates for insurance are considered, and the many kinds of insurance that have been developed to suit the varied character of our civilization and individual needs are explained at length.

PUBLICATIONS RECEIVED.

PROHIBITION CONTINUES TO PROHIBIT. A pamphlet of twenty-four pages of testimonies from various sources in Maine, Iowa, Kansas, Georgia giving conclusive testimony that prohibition prohibits. Governors editors, attorney-generals, grand juries, business men join in giving evidence, and the false reasoning of enemies is fully exposed and answered. Price, five cents.

No. 33 OF OGILVIE'S POPULAR READING contains a very neat colored floral plate as its frontispiece; the stories annexed being in the usual line of popular sensation. Price 30 cts.

BIRCH BARK FROM THE ADIRONDACKS, is a pleasant description of Summer life in the mountains. The writer supplies a good deal of practical information for the tourist and summer lounge.

FIFTEENTH ANNUAL CATALOGUE OF THE MORGAN PARK MILITARY ACADEMY, near Chicago, Ill. A well-equipped school, conducted by a gentleman of culture and experience. Capt. Talcott we know to be a man who believes in making his students well informed in the solid ground-principles of education, and aims also to develop the moral elements of character.

CURRENT EXCHANGES RECEIVED.

The Citizen: Organ of the American Institute of Civics. Monthly. Boston.

The Prairie Farmer: Orange Judd, Editor. Chicago.

Book News: Full and critical, of recent literature. Philadelphia.

The Illustrated Western World: Monthly. Kansas City, Mo.

The Medical Current: W. A. Chatterton & Co. Chicago.

The Southern Cultivator and Dixie Farmer: Atlanta, Ga.

Wallace's Monthly: Illustrated. Devoted to our domestic animals. A useful periodical. J. H. Wallace. New York.

U. S. Medical Investigator: Duncan Brothers. Chicago.

Harper's Monthly for September contains interesting studies of English thought and French art. Harper & Brothers, N. Y.

Literary Life: a new monthly. Elder Publishing Company. Chicago.

The Century, for September, gives a sketch of art in Persia, and a fresh batch of war recitals. New York.

Popular Science Monthly, for September, discusses evolution, hereditary and branches of physics. D. Appleton & Co. N. Y.

Lippincott's Monthly, for September, has a varied bit of seasonable reading. Philadelphia.

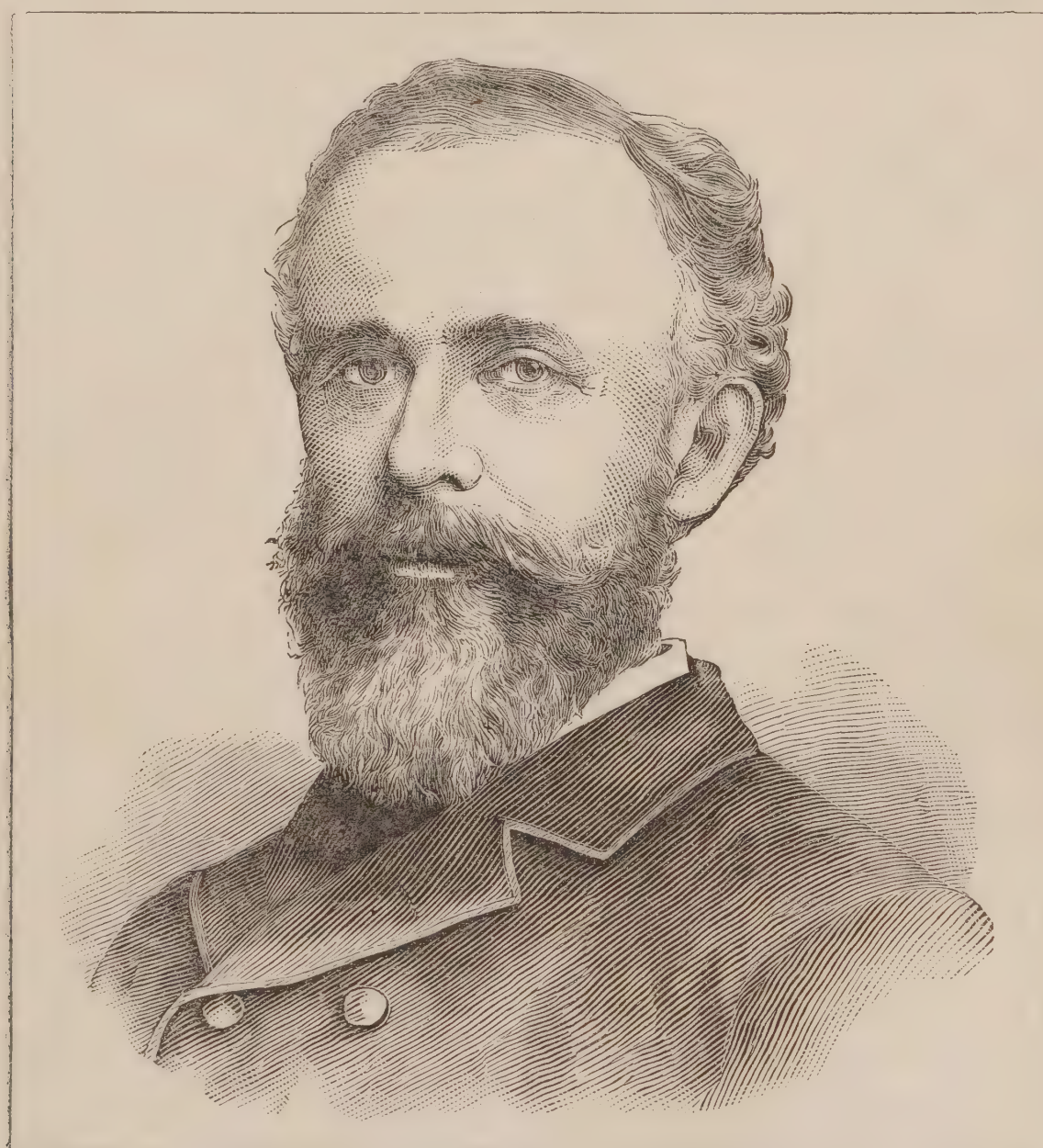
Cosmopolitan, with a picture of the Liberty Statue on cover. Rochester, N. Y.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 83. 1886.

NUMBER 5.]

November, 1886.

[WHOLE No. 575.]



**EDWARD S. MORSE, PRESIDENT OF THE AMERICAN SCIENCE
ASSOCIATION.**

THE observer is struck at the first of quality and temperament ; second, sight of this portrait by its indication of a fine balance of the mental organization of two things ; first, a high order of organization. There is the stamp of a good in-

heritance, a nicety of impression, a sensitiveness to feeling and emotion, a readiness of conception that show the parentage on both sides to have been above the average in endowments of head and in those physical qualities that complement a good head. Perhaps, in sensitiveness he is more like his mother, yet we think the portrait warrants us in saying that his father must have possessed more than average intellectual receptivity.

The fine quality of the organization imparts a nervous tone to the whole man. The intellect is massive, being especially full in the upper range where reflection, comparison, analysis lie. The parts in the region of the temples are well developed, showing excellent mechanical judgment, ability to understand the use of tools, to put into practical operation the formularies of science, to appreciate whatever belongs to the sphere of taste, to art and beauty.

The temperamental type, we need scarcely add, is mental, and with so much fineness of fibre in every part, Professor Morse can not help being a very active man. He is alive all over, and needs to be reminded at times that there is a limit to human endurance, and that he may overdo. His head is high in the crown, we think, corresponding with the marks of aspiration, zeal and earnestness in the face. It is also rather broad between the ears, intimating the spirit of industry, the desire to be thorough in what he attempts to do.

With his spirit and activity we infer there is a broad view of life, a desire to know in a general sense. He would not be content to restrict himself to but one

line of research, but, while keeping in view some particular object, he would like now and then to turn aside for a moment to gather a little fruit in some new field or other of nature. He is, therefore, not a man of one idea, but liberal to all truth, and glad to learn. In disposition, as in intellect, he is broadly constituted and should be known for kindness and a ready sympathy, and freedom from anything bordering on arrogance, self-sufficiency or envy.

We can believe that his convictions are firmly held; that he values very highly the demonstrated truths of science, yet we would take him, from the portrait, to be a man who can respect the opinions of an opponent and discuss them with all the keenness of a penetrating logic without an expression of cynicism or curtness. He, in fine, has the qualities to respect ability and worth wherever they may be found.

Edward Sylvester Morse was born in Portland, Maine, and is about forty-eight years old. He may be said to have become a scientist at the age of thirteen, when he began the systematic collection of shells and minerals, and in 1857 he made a contribution to the collections of the Boston Society of Natural History. He finished his schooling at the academy in Bethel, Maine, where he was more interested in the woods and fields and their treasures than in the classics.

From 1852 he was for several years a student under Agassiz at the Museum of Comparative Anatomy, in Cambridge. Here he began to make a specialty of brachiopods, and he continued his investigations for many years. The result was an important contribution to science that gained the commendation of Darwin and other eminent Europeans. From Mr. Darwin he received several letters on this and other features of his work.

He removed to Salem in 1876, which has been his home since, and there, with Professor Packard, became one of the founders of the *American Naturalist* magazine, which is now issued in Philadelphia. In 1868 he was made a Fellow of the American Academy of Arts and Sciences; in 1871 Bowdoin College gave him the honorary title of Doctor of Philosophy; in 1874 he was elected to a university lectureship at Harvard; in 1876 he was chosen Fellow of the National Academy of Sciences, and in the same year he was elected Vice-President of the American Association for the Advancement of Science.

While investigating marine zoology he visited Japan to make some coast dredgings. This visit turned out to be of great importance in his career. His work attracted the attention of the Japanese government, which induced him to accept the chair of zoology in the Imperial University, just then established at Tokio. After organizing his department, and laying the foundation for the splendid collections which have since been made in his field for the Imperial Museum, he resigned the place and left a country to which he had become warmly attached by many ties of friendship and sympathy. While occupying his post in Japan he came home on a winter vacation to meet some lecture engagements and in 1882 he made a third visit to Japan to continue studies he had instituted and complete a tour through the empire. He made a scientific study of Japanese pottery, and gathered together the largest and most valuable collection in the world. He was led to this study by making some examinations of prehistoric pottery. A cut for the railway had been made through the famous Omari shell-heap, and Professor Morse was struck by its similarity to those found along the New England coast. In examining it he found many traces of an ancient race which had occupied the land before the

Ainos, the hairy people, now of the northern islands, who were dispossessed by the present Japanese race over 2,000 years ago.

Professor Morse has always pursued his investigations—many of them costly and requiring wide travel—at his own expense, and to carry these on he has, therefore, been obliged to increase his income through lecturing on scientific subjects. This necessity, has compelled him to acquire much knowledge in the general field of natural science, and has given him an equipment that has made him something more than a specialist.

He is as enthusiastic in ethnological and archaeological investigations as in zoology. His warm human sympathies and quick and accurate power of observation give him a particular fitness for ethnological work. In this field he has made a specialty of the Japanese people, and his first published result is a handsome work on *Japanese Homes*, giving a mass of information as to the domestic life of the people.

A valuable contribution to archaeology is his paper on "Man in the Tertiaries," read before the American Association at its Philadelphia meeting, showing that research, as far back as it has gone into remote geological periods, shows not the slightest convergence of the human species toward the lower orders, and, therefore, demonstrating the great antiquity of man. Besides the printed works mentioned, Professor Morse's literary work includes a considerable list of publications in the shape of essays in pamphlet form and contributions to various periodicals, and the proceedings of scientific societies; besides a *First Book in Zoology*, illustrated by the author, and a text-book for schools here and in England. In zoology Professor Morse's special field is embryology, and he has taken particular satisfaction in tracing connections between little known species.

Early in his life he had some experience as a mechanical draughtsman

in the locomotive works at Portland, Me., and afterward he drew on wood in a Boston engraving establishment. He thus acquired the power of sketching with rapidity and exactness. This accomplishment has been of great service in his scientific work.

Professor Morse also deserves mention

as an inventor, his faculty for investigation finding expression also in this field. Among his inventions are a game of battle, a museum shelf-bracket, which has become a standard feature for both museums and libraries and an apparatus for practically utilizing the heat of the sun for warming apartments.

GEORGE ELIOT AND PHRENOLOGY.

THE following, from the autobiography of the late Mr. Charles Bray, author of "Education of the Feelings," and who for many years enjoyed the intimate friendship of George Eliot, is of interest to the reader acquainted with Mrs. Cross' position in modern literature:

In the best notice that has appeared of "George Eliot's Life and Writings" (*Westminster*, July 1881), the reviewer says: "We have found in her teachings the enforcement of the doctrine of consequences more richly illustrated, more variously applied, more scientifically stated than ever it was before." I am glad this is the writer's opinion: still I do not give up my claim to having made the best scientific statement of "The Law of Consequences as applicable to Mental, Moral, and Social Science." George Eliot always also held with me as a sequence to such doctrine of consequences that one of the greatest duties of life was unembittered resignation to the inevitable. At that time we were both very much interested in Phrenology, and in 1844 she had a cast taken of her head by Deville in the Strand, which is still in my possession. We afterward took lessons of Mr. Donovan, on Organology, when he was staying at Coventry, and converting all the leading men of the city to the truth of the science by the correctness of his diagnosis of character. Miss Evans' head was a very large one, 22 $\frac{1}{4}$ inches round; George Combe, on first seeing the cast, took it for a man's. The temperament was nervous lymphatic,

that is, active without endurance, and her working hours were never more than from 9 A.M. till 1 P.M. The third volume of "Strauss" was very heavy work to her, and she required much encouragement to keep her up to it. In her brain development the intellect greatly predominated; it was very large, more in length than in its peripheral surface. In the feelings, the animal and moral regions were about equal, the moral being quite sufficient to keep the animal in order and in due subservience, but not to be spontaneously active. The social feelings were very active, particularly adhesiveness. She was of a most affectionate disposition, always requiring some one to lean upon, preferring what has hitherto been considered the stronger sex to the other and more impressible. She was not fitted to stand alone. Her sense of character—of men and things—was a predominatingly intellectual one, with which the feelings had little to do, and the exceeding fairness, for which she was noted, toward all parties, toward all sects and denominations, was probably owing to her little feeling on the subject—at least, not enough to interfere with her judgment. She saw all sides, and that always manfully, clearly, and without prejudice.

Our eyes, so very prone to trace
In others, signs of sin,
Would see full many scars, I ween,
Did they but look within.

FAMILIAR TALKS WITH OUR YOUNG READERS—NO. 11.

SELF-ESTEEM.

WHILE we are speaking about the faculties in the top of the head, my young friends, there is one that presses for notice, and as we have just been examining Firmness, we can naturally take one step back and consider it next. You have all noticed that boy, Joseph Offhand, in your school life. You know how easy and self-possessed he is at all times. When asked a question he doesn't turn red, twist awkwardly on the seat, fumble with his coat-buttons and stammer out some indistinct words. No, he's cool as lettuce in April, sits up straight, looks the teacher in the face, and speaks out clearly. When he doesn't know his lesson it is a matter of little concern apparently. He declares it squarely, with or without excuse, and looks around with an air of independence, and you don't think that coming to school unprepared to recite is half as sorry a matter for him as it would be for you. In fact, whether he's a good scholar or not, you can't help admiring him, and you let him be a sort of leader or superior in your games, and out-of-school life. He is not afraid to take the lead when you boys want to solicit some favor from the teacher, and when a lot of you get into trouble on account of some prank he is the one you ask to be your spokesman in settling it. He may sometimes do or say things that are very irritating and hard to stand, but you like to be on good terms with him, and will put yourselves to some trouble to be considered one of his friends.

Now, the quality that has most to do with these characteristics in Joseph Offhand is Self-esteem. It is just that which gives him so much coolness, ease, independence, and confidence in himself, and makes him so different from most of the other boys. Self-esteem gives one a consciousness of worth, self-reliance,

dignity, and when strong it is a great help to a man in his effort to carry out his plans, because he is not so much affected by misgivings, other people's opinions, and diffidence as those whose Self-esteem is moderate. People who have this faculty in a strong degree and are not well-balanced in intellect and the moral feelings carry themselves in a haughty, arrogant fashion. It does not



THE POMPOUS FOOTMAN AND THE HUMBLE VISITOR.

matter what their station in life is they are proud, overbearing and supercilious. If they get into a place where they can exercise a little authority they are arrogant and very Moguls in loftiness, and look silly enough in the eyes of sensible people. Some beggars show the feeling in a marked manner. They will ask for money with a proud, imperious air, as if we were indebted to them. I have known tramps to decline food offered to

them because it wasn't fresh, and demand something hot on a plate and with knife and fork.

In the picture we have a good illustration of Self-esteem very strong. See the pompous bearing of the liveried servant as he holds the salver for the card of the visitor. He puts on far more "style" than his employer, and probably on account of his size and lofty ways



SENATOR GRAY. SELF-ESTEEM LARGE.

is tolerated as an appendage to the household. The visitor is much less endowed with self-confidence, and seems awed by the assumption of the big lackey. Probably he has come to ask a favor of the owner of the mansion, and his reception by the lackey has had a weakening effect upon his courage. If the master is at all like the man he thinks his chances for success are few.

When the organ is large the head is high at the crown, and looks long on top—as in the portrait of Senator Gray of Delaware. The organization of that gentleman appears to be well-balanced, so that the faculty is influenced by many other faculties and especially by a well-

developed intellect. Report speaks of him as an excellent speaker, and in his associations with others he is said to be very pleasing, and yet shows dignity and self-reliance.

A good share of Self-esteem is a desirable thing to have as you are ready to admit from what you know it does for one. Backbone, the spirit of progress, the inclination to try things that are new, and that spirit that enables one to resist the influence of companions, when they would draw him into vice or moral crookedness, come in great part from Self-esteem. Those who are wanting in it, whose heads are depressed back of Firmness, are diffident, hesitating, dislike to be conspicuous, and don't wish to undertake responsible things. They may be talented, well-educated and favored, but they do not consider themselves of much value, and allow others of really less capacity to take precedence.

If you should visit an asylum for the insane and be permitted to study the unfortunate people there you would see some very curious illustrations of the influence of Self-esteem when very powerful and unrestrained by other organs. Such lunatics imagine themselves kings or queens, and possessing great authority. They will look contemptuously on others and strut around in a most haughty manner.

HOPE.

This is a pleasant faculty to talk of, because it suggests sunny ideas, and a bright future. It appears to be active generally in young people and gives them "great expectations." What big things most boys have in mind for the time when they become men. How much they will do then! And if they are industrious and studious naturally they will work away at their tasks in a happy mood, thinking that they can in this way reach their object before a great while. A little promise to a child will make him cheerful all day long. You know the boy at a glance who has little

Hope, because he is usually listless, dull and gloomy, and needs to be pushed along and encouraged. If he have a good deal of Self-esteem he will be stiff, proud, and not inclined to accept favors, but not cheerful or lively. In girls when Hope is large it is shown by their high spirits; they see future good in everything. If they are going on a visit or an excursion, they expect "such a lovely time," and failure in anything they undertake is not to be thought of. Hope lies in the brain just forward and outward of Firmness (See No. 16 in the diagram in the September number). When large it raises and rounds out that part of the head. I think it is pretty well shown in the portrait of Mr. Springer, a member of Congress, from Illinois. His expression shows a cheerful, good-natured disposition, as well as the sharpness of a fine intellect.

Hope is a most valuable element in our life, because it imparts so much cheer and brightness. When misfortunes come its influence is great in helping us to look at them calmly and set

who have a good deal of Hope and those who are small in the organ! It is



MR. SPRINGER. HOPE LARGE.

apparent at once when they meet with difficulties and troubles in their business



"HURRAH! A SAIL, a SAIL!"

about making the best of them. What and social life. One class will make a difference there is between the men light of embarrassments that the other

groans and sighs over. Some men fail in business but are not cast down ; they look around for something to do, and in a little while we find them on their feet and more prosperous than before. Others fail and are at once miserable, complain that, "luck is against them, and there's no use in trying." They shrink from the sight of their old acquaintances, and go with head bent and slow pace.

Sir Walter Scott is a good example of strong Hope. It buoyed him up when burdened with misfortunes and pressed with creditors, so that at fifty-five he cheerfully set to work to earn by the toil of the writer money for the payment of his debts.

In the picture of the wrecked party on the raft we have an apt illustration of the

effect of Hope on the mind. The unfortunate cast-a-ways catch a glimpse of a ship in the distance, and the weary hearts of two are aroused and they make efforts to attract attention. One of them appears to be broken, dispirited, and unwilling to respond to the hopeful cry of the other. He probably says "Its no use ; They won't see us. We've been tossing about now several days and no signs of rescue, and I've given up." A great mistake, we should never give up expecting better things. By using our Hope rightly, by cheerfully looking forward to success in our every day life, our work becomes easier, our hearts lighter, and we help ourselves and others in more ways than we think.

EDITOR.

THOUGHTFUL MEN AND POSITIVE MEN—A TEMPERAMENTAL DISTINCTION.

OF the hundreds of millions in the world no two are so nearly alike that intimate acquaintances do not notice a marked difference. The craniognomist can not always find a sufficient cause for this in the form of the head. The physiognomist, if he discover the fact, can not account for it ; but the phrenologist, being at liberty to study every thing about body and brain that can affect mind, finds the greatest interest in peculiarities that arise from the quality of the brain.

There are physiologists who deny that the brain is the only organ of the mind. They assert that other portions of the nervous system sustain mind, and they refer to the organized action of decapitated frogs, birds from whom the hemispheres have been removed, and to cases of disease affecting the spinal cord so that sensation in the lower extremities has been cut off, while movements may still be excited by irritation below the lesion ; but these objectors discriminate between that mind which consists of mere sensation and motion, however

well organized, and that which they call ideation, which, as all admit, has its seat in the brain.

Man is composed of an infinite number of cells, which are modified in form and function to suit their places, and each of these cells is possessed of a life of its own, which is in subordination to the great central life of the brain.

The structure of the brain affords no clue to its function, neither is it possible to conceive how mind can be either produced or sustained by it, or how the brain can be made an instrument for the execution of the will of the mind. Facts are established in the absence of a satisfactory *rationale*, and the study of the signs of character is one of observation, not of speculative theory ; yet when the facts are established a theory more or less reliable is invaluable as a guide to further investigations.

The brain is composed of cells and fibres. The fibres are elongations of portions of the cells and extend to other cells, or are sent enclosed in a sheath to distant organs as nerves. The cells are

most abundantly supplied with blood, are of a darker color than the fibres, and they are often described as gray matter, or cineritious matter. They are most abundant on the surface of the brain, the whole of which they cover several layers in thickness, and it is this extensive mass that most immediately sustains mind, and is called, on account of its situation, the *cortical* substance. This *cortical* substance when very great in amount is folded into convolutions, which are more and more numerous as the quantity is greater in proportion to the capacity of the skull.

The student of character who would avoid the common error of accepting for superior intelligence the positive expression of ordinary minds, must discriminate carefully between the expression of *thoughtfulness* and of *positiveness*. It will be of great advantage to him if, at the commencement of his studies, he can find well-marked cases of the two extremes. Having become acquainted with the two classes thus widely separated it will be easier and more interesting to study their modifications and blendings.

The thoughtful man usually has a head of a different form from that of a positive man, but this difference is not always found, and we must have other means of distinguishing these characteristics. The object of this article is to enforce the importance of studying the physiognomical expression of the temperament; this requires that attention be directed to the possible variety of brains in chemical composition and minute structure, in ways affecting character without changing the form of the head, and to the means of discovering these diversities.

When the conditions of predominant thoughtfulness are fully developed to the extent of molding the head the forehead and upper lateral portions will be relatively large. The brain has several centres of action all but one of which are the base and middle portions, and

their functions are subordinate to that of the hemispheres, which being developed give form to the head.

As it is evident that cell substance is the seat of the origin of nerve force, and that fibers are the conducting substance, we may infer the structure of the brain from the mental manifestations. On removing the skull and *dura mater* the convolutions will be found more than usually complicated and numerous, its large surface extensively folded to make room for its great amount in its narrow cell. The depth of the *sulci* between them is greater than usual and when the gray matter has been removed the portions of the brain that remain will be very small. In comparative anatomy the harmony between the intelligence and the development of the foldings of the *cortical* portion of the brain is well marked. In birds, small as are their brains the surface is nearly smooth, while in all domestic quadrupeds the brain is folded longitudinally and to a greater or less extent in a transverse direction also. The inferior animals have as sharp a faculty for self-preservation as the higher, but less capacity for improvement. Witness the difference between a trained dog who obeys every word of command, instantly doing that which is foreign to his nature—walking and jumping on his hind legs, waltzing, kneeling etc., and the very imperfect performances of canaries, that must be directed by the hand to every required movement.

Nature has done her utmost to depict the character upon the organization of man. She has so constructed the head that the development of brain gives to it its form almost completely, The only exceptions being over the eyebrows and in the temples. There are inequalities beneath, and near the brain over which one may stumble if he be stupid enough to turn out of his way for that purpose, but the long protuberance behind the lobe of the ear and the smaller and sharper process at the back part of the

neck mark the lower border of the brain. So complicated and delicate an organ will vary in internal structure and composition to an infinite degree, therefore it is not sufficient to know the size and form of the brain; and here again, we have to admire the provisions of nature for revealing that which could not otherwise be known during life—the quality, degree of activity, and variety of the activity of the brain by the expression of the countenance.

This is so perfectly accomplished that attempts had been made before the discoveries of Phrenology to found a system upon it for the diagnosis of character, and even at this day there are those who, being unable to apply more than one rule to a subject, prefer the one of the face to any other for signs of mentality.

If any system of mental science were satisfactory that would generally suggest nearly the truth; there would be several systems from which any one might take his choice; thus, when heads are about the average size and form, the *quality* of the brain will indicate the grade of ability, and a physiognomist will form an opinion not widely erroneous; when the quality of the brain is about average the craniologist may flatter himself for his accuracy, and when the quantity, quality and form of the brain are about average, the tendency of the character will be determined by the temperament and the vigor of the constitution; but as any and all of these general conditions may differ from the average standard all must be examined in every case, for there is no dependence to be placed upon deduction from any number less than the whole. The old maxim, "Half the truth is a whole lie" is particularly pertinent to the study of character, and herein is the grand excellency of Phrenology, which directs attention to every part of the system known to influence character.

The "Temperaments" are not identical with "Apparatus." The latter is an anatomical division very simple but

very important. The temperaments, although generally associated with a particular anatomical development, are not invariably known. If a man have a large head, a slight muscular development and a slender body, the mental apparatus predominates, but his face may indicate a positive, working mind, like the Bilious temperament, or a sensitive, sympathetic expression with a tendency to repose, as in the Lymphatic. He may have very heavy muscles with no characteristic of the Bilious.

The term "Temperament" may be understood to mean the quality that *predominates*, therefore a man may have one, only. In this we see a distinction between *Apparatus* and *Temperament*.

There are generally considered to be four temperaments and their blendings. This is a convenient classification, but the close study of character will induce the making of many distinctions which are as well considered independently of the four grand divisions as under them. Were we to consider the varieties in the brain's action without being confined to any classification, one of the distinctions we might make to advantage is into thoughtful and positive minds. We should then have persons of much impressibility, in whose brains there is a greater amount of cells than fibres, and in whom the nerves of sensation predominate over those of motion, while fibres predominating would give a positive mind. The one is thoughtful in the receptive sense the other is active in an executive manner.

The fibres may mostly extend from brain cell to brain cell, or they may be most largely sent to make up muscular nerves of motion, or to the sympathetic nervous system to regulate vital functions, and all these differences and many more, not only of brain structure but of chemical compound also, have an influence upon character.

When physiology of the brain shall take the place of the present Phrenolo-

gy it will be by diagnosing all the conditions on the living subjects ; but phrenologists accept what nature offers in the size and form of the head, the proportions of the body and its parts and the expression of the face for the quality of the brain and the variety of its mode of action.

Those who have sufficient faith in the superiority of physiology of the brain—the “New Phrenology”—and who have a prejudice against Phrenology, which accepts nature’s direction, will wait until that science is more nearly complete, and should they attain to the length of life attributed to Methuselah they may find an encouraging advance in some important particulars.

The face and features of the thoughtful man, whom we may suppose to have a predominance of cells over motor nerve fibers, are very expressive. It not unfrequently happens that the face is large, though not muscular, as though nature required surface to express clearly so gentle a quality.

It is very interesting to observe what perfect and varied portraits she can delineate upon the face by the action of fifteen delicate muscles and the seventh pair of nerves. While the muscles seem at rest, there is represented a stream of thought, anxious, cheerful, kindly or humorous, and when the man sleeps, how distinctly that fact is revealed by the absence of expression, at the same time that we can discern the traces of thought that has been and will again appear. The attitude and movements of the man are also expressive, both of thoughtfulness and of the absence of positiveness. The muscular system seems to have the minimum amount of energy, the shoulders and head droop under the influence of gravity, unresisted by muscular tension. It would be a stupid blunder to infer thoughtfulness from the absence of positiveness and muscular energy, and it should be borne in mind that extremes are not often very strong and perfect in anything.

A man of predominant thoughtfulness is not justly esteemed by the masses, and is particularly underrated by the positive man, except in case of intimate acquaintance and friendship when they act as counterparts, the one dropping a hint, suggesting thoughts, or in some way supplying the other with ideas. The thoughtful man often passes for a good man of moderate intellect, whereas it is his good intellect that enables him to discern the right and true in complicated cases. Society is not impressed by what a man thinks or knows, but by what he says and does, hence he is not esteemed, and all his learning and wisdom go for nothing in popular estimation, while they are of great importance to him.

The student of character will observe in these men, in the first place, a negative excellency ; they avoid mistakes, are not guilty of indiscretions and follies of a moral, social and business character as other men are, and sometimes their success seems as though it were the result of mere good fortune, the right way having been thought out instead of forcing success at a great disadvantage. Others, of this class, depending too much upon reflection, neglecting the study of facts and forming their opinions of men from their own consciousness, and shrinking from notoriety, become speculative instead of practical, and are led into errors or fail of practical usefulness. A strongly marked, well known instance may illustrate this point. This was a man of more than average size and well-developed chest, and with a head relatively large. On meeting him, one would not think of his physical peculiarities for he would be too strongly impressed by the penetrating gaze of the countenance which he encountered. His face was rather large, but his head was still larger, projecting anteriorly and laterally as though the brain were developed as far away from the center of the base as possible. When a boy his habits were so unlike those of others, and his

mental activity so much greater than his muscular, that he was called by his schoolmates "Slow and easy." One day, when he had been sent by his father to the shore for a load of seaweed he was seen by some waggish boys, on his return, walking beside his horse, his head hanging down and his hands behind his back. They detached the horse from the cart, letting the shaft down noiselessly, the old horse keeping on his way home and the boy beside him ignorant of what had been done, until his father asked him what he had done with the cart. This man became a distinguished linguist, a learned theologian and clergyman of the Episcopal church, but his preaching was above the comprehension of the most of his congregation, and for several years his wife earned a living by keeping boarders. Slowly his merits as a scholar and philosopher commanded respect and he prospered. He is now living at an advanced age of over ninety years.

Let us turn to the other extreme and glance at the build and expression of a man of personal presence and impressiveness, who has less of real intellectual and moral merit. Observe particularly the mode of brain activity as represented by the physiognomical expression. We discern a desire for immediate action. No more preparation is felt to be needed—he is now ready and will move at the first opportunity. If he make mistakes he will correct them as he proceeds, or let them do their worst. The internal, minute structure and composition of the brain is very unlike that of the thoughtful man. The fibres predominate over the cells of the *cortical* portion. There is an analogy between brain substance and function, and the electric battery, that may illustrate our subject, while it would mislead us were we to carry the analogy too far. As in the battery the electricity is generated in the cells and conveyed by the wires, so in the brain the nervous influences receive origin in the cell substance and are conveyed by

the fibres, but in this case the conducting apparatus, instead of obstructing a portion augments it, being itself a vital part of the apparatus.

A brain may be exhausted first in the generative portion to retard thought or in the conducting portion to produce inaction. This being understood it is seen that a brain that is large on account of the length and abundance of fiber while the cell structure is scanty, is well organized to sustain a mind of superficial character and great positiveness of manifestation. An author whose physiology represented action rather than thought, confessed that he had never read through a book that was as thick as his finger.

But nature, in endeavouring to perfect this variety usually develops more brain in the back, upper head than in the forehead.

Post-mortem examinations of the brains of the men of extreme positiveness due to internal structure will show less of the cortical portion and a less complicated convoluting of its surface, and when the gray matter is removed more of the brain will remain. There is the mass of fibrous substance and the nerve centers at the base, which have functions more immediately relating to some physical function.

The positive man, though not a great thinker, is deeply imbued with the importance of the little thought he possesses. He may be dependent upon some very humble man for his ideas but he forgets their origin while he feels their importance, even though they may be very simple and the common property of society. By almost universal acknowledgement our man is great. His greatness is not to be challenged in any way, and were he to be found deficient it would not detract from his greatness, which is an integral quality not dependent upon his intelligence, his scholarship, his virtues, his wit nor his wisdom. To his mind it is great to be a man and to know the fact, and who shall take is-

sue with him? May he not be more nearly right than those modest individuals who feel that they have no claim to respect except such as they can substantiate by intellectual, moral, or social excellencies? Ah, but it would not do to have too many great men. They would fill the world too fast, require too much room and too large interstices. These spaces must be occupied. Nature is liberal, but she is economical. Her plan contemplates the production of the greatest amount of life and enjoyment, for which purpose she peopled the world with the germs of infusorial life at a very early stage, improving the races as the conditions of life would admit, accumulating bulk in the first place to be refined and perfected later. However greatly we may be inclined to admire the hero of aggression in war, in politics, in science or in society, if we listen to the teachings of nature we shall learn that these men are of the past and present, but not of the future, and shall conclude that when truth and justice make a more ready and permanent impression upon the common mind it will not be necessary to keep up the race of great men who are great in nothing elevating.

Men have been described by the use of the terms of gunnery. Our great man is of heavy metal and small caliber. It is amusing to hear an orator of this class declaiming on a well-known theme, and to see the wonder-stricken attention of his hearers, who go away under the impression that they have been listening to an oracle of wisdom; yet perhaps not one in ten could tell what he heard and not one in ten could say he heard anything new and great.

At present, at least, these men have their use; for what they do is done effectually. Success with them is not due to intelligent, ingenious calculation, but to the energy which they manifest. They are, therefore, always successful in their way, although it may be that another would deem a failure preferable to their success.

If this division of men into classes is to be of any advantage in the study of character we must be able to make the distinction in cases not so extreme, and until we can do so with a good degree of accuracy there will be a serious defect in our opinions of character.

A positive man who is not below the average in intellect will have the reputation of being very profound. He speaks with authority; we feel that he knows a great deal more than he tells and that it would be disrespectful to ask him for his evidence; and yet he may be merely repeating what he has just heard. He is not conscious of any false claim. It is not of this learning that he is proud. It is of himself and his native greatness, and were he in the presence of the man to whom he is indebted for his information it would have no effect upon his manners. A lad of this type who was supposed to be the manager of his father's farm, went early in the morning to the real manager and inquired what he was going to do. The man replied, "I'm going to mow the oats this forenoon and in the afternoon I'm going to put the hay, that was cut yesterday, into the barn." Before the man had left his father came out and said, "Harry, what are you going to do to-day?" The reply was prompt and positive—"I'm going to mow the oats this forenoon, and in the afternoon I'm going to put the hay, that was cut yesterday, into the barn." That son stood high in the opinion of his father, but no degree of thought and consideration of every side of a question will bring to a man respect for his talent or judgment, if when asked his opinion of the weather he replied, "We may have snow, or perhaps it will be rain, but I think it will depend very much upon the weather."

JOHN L. CAPEN, M.D.

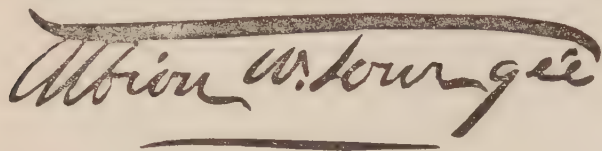


The best part of health is fine disposition. It is more essential than talent, even in the works of talent.

INDICATIONS OF CHARACTER IN HANDWRITING—NO. 8.

THE capital letter "T," though not of so great importance as the small letter, is yet sufficiently so to be carefully observed.

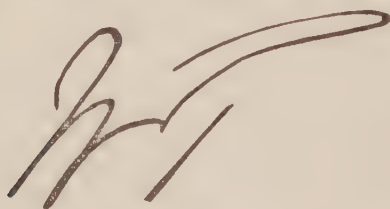
1.—The "T" of Albion W. Tourgee, author of "The Fool's Errand," etc. Firmness and a will strong to obstinacy are shown in the forcible bar to the letter. I do not remember ever seeing so strong a "T" in any writing that, as yet, has come under my observation.



1.

Its crushing down upon the small letters betokens the despot, were it not relieved somewhat by the graceful contour—pointing out a cultured and somewhat poetic mind, and the slope of the other letters of the signature indicating tenderness. When once an idea is fixed in Mr. Tourgee's mind I think I am safe in asserting that scarcely anything on earth can remove it.

2.—The "T" of General W. T. Sherman's signature. In its upflying bar, so far above the down-stroke we have an



2.

ardent, vivacious though not obstinate will, and an impetuosity almost amounting to foolhardiness.

Mark Twain's signature as seen in the frontispiece to "Huckleberry Finn," is, like himself, quaint and original. There is generosity in the wide distance existing between the letters, poetic feeling in the harmonious curve connecting the "T" with the small "w,"—and a strong will in the firm bar to the letter, sequence of ideas in the grace with which the letters are joined one to another.

3.—The "T" of Alfred Tennyson is exceedingly disappointing at first glance to one who has read "In Memoriam," etc. There is originality, poetic grace and generosity indicated in its peculiar form and large rounded head, but its eccentricity savors of self-conceit and assertion. And yet the more it is studied the less these two qualities appear. It is a baffling signature. Sometimes it seems to indicate one thing and sometimes another. As I now write I am inclined to think, as I have often done before, that it is the self assertion of a man who has ever fought against an innate despondency in himself, and the general tenor of the writing conveys this idea of melancholy and depression in a large degree. (See remarks on Leigh Hunt's writing.) Its unusual form is not so surprising after all, for on due consideration I am bound to remind the reader that, with all his faults, there is but one Tennyson.



3.

The letter "W" seldom occurs as a capital, yet, when it is used, it is subject to the general laws laid down in our studies of the other letters. That is, imagination and originality would be shown in any disproportionate or eccentric forms of the head of the letters, artistic feeling and cultivation in harmonious and simple lines, and tenderness and sensitiveness where the letter takes a sloping form. Acuteness of observation is capable of being indicated by the lower curves of the letter, which, if both terminated in sharp angles, would denote that extreme penetration and acuteness of investigation we generally find in the writing of all scientific men, and which is also one of the characteristics (although not so markedly) in the

handwriting of most of our distinguished doctors.

4. I have but one illustration of this letter and it is found in article 5, figure 10, to which the careful reader will kindly refer. It is the signature of Ugo Toscoio, the eminent writer, whom Lord Byron so much admired and esteemed, and whose literary researches he commended so highly in the notes to "Childe Harolde." It will doubtless be remembered that in the indications of the letter "T" imagination was said to exist. In the "W" there is less of this quality. The letter is clear and simple, indicating a high order of refinement and grace; strength of will and acute penetration are shown in the firm lines and heavy angles of which the letter is formed.

The letter "V" is also of very rare occurrence as a capital, but, when employed as such, it lends itself to indications of originality and imagination in a marked manner.

5.—Here is a capital "V" from the termination of a letter written by the late Dr. Chambers to a patient. Absence of all affectation in the simple lines, without any pretension or flourish,

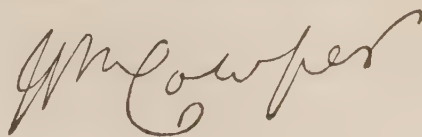
kindness in its rounded curves, sequence of ideas in its loop leading on to the next letter. The doctor's

5. acuteness is not shown in this letter, but this quality is distinctly shown in the angular form of the small letters "r" and "y" in the rest of the word given.

"W" being very similar to "M" is to be considered as of equal importance in pointing out the natural trend of character.

6.—In this signature the poetic grace of William Cowper is clearly revealed in the beautiful curve with which the "W" is commenced. Strong will is indicated in the angularity of the letter, but this indication is somewhat softened by the tenderness and despondency expressed in the remainder of the signature. This latter quality is clearly shown in the

fact that the first point at the base of the letter is much lower than the ordinary writing—while the great ascent



6.

made in the second point betokens a mind easily influenced by its surroundings

7.—The capital letter "W" of William Pitt, the great Tory minister of England in bygone days, taken from the address of a letter. Here we have sensitiveness in the sloping lines, cultivation in the grace and simplicity of the form of the letter, and a penetrating judgment in the angular form of the two points in the base of the letter. We have given the rest of the name, as the writing is so indicative of the noble clearness of mind, and rectitude of character, which were the strong characteristics of the great Tory minister. The ascendant movement of the writing is indicative of ambition.



7.

8.—The two "W's" in the signature of William Wordsworth, the gentle poet of the English Lakes. The highest type of intelligence and refinement evidenced in the simplicity of the outline, the letters being

but the small letters used

8. as capitals. Tenderness is in the sloping lines, and wonderful ease of expression in the ready flow of the pen in joining the letters.

9.—From the signature of Walt Whitman the American poet. Tenderness in the sloping lines, generosity in the width of space between the letters, openness of disposition, and a desire to tell all in the largest distinct letters. A strong and

ardent will is expressed in the bold upstroke with its firm and thick termination. There is a great similarity of indication in this writing and that of Lord Byron's.



9.

The letter "X" seldom occurs as a capital. Miss Baughan says when it does occur it is subject to the same laws of interpretation as the letter "W." I would add that I have noticed a similarity in its indications to that of the capital "C."

10.—This illustration is the one used by Miss Baughan, and of it she remarks: "We have given one example of the letter from the writing of a person of no note, but from the eccentric form of the letter, we thought it worthy of insertion. Such a capital letter "X," approaching so nearly to the printed form of the letter,



10.

would indicate a severely correct taste in art, and a certain originality, as it is a form of the letter so rarely used.

The capital "Y" is worthy of study, for in its downstrokes, and in the form of the head much may be learned.

11.—In the signature of Edmund Yates, editor of the *London World*. Easy sequence of ideas here in the ready connection of the letters. Great secret-

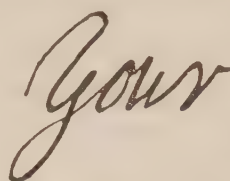


11.

iveness in the small head, and imagination in the flowing up and downstroke, originality in the unusual form of the letter, sensitiveness in the sloping lines. There is not much poetry in Mr. Yates' composition, if his autograph is a fair specimen of his ordinary writing.

12.—A capital "Y" from the handwriting of George Crabbe, the poet. Refined grace and tenderness are the chief characteristics of this letter; sequence of ideas are in the easy, flowing

connection with the following letters. Generosity and openness in the clear, rounded forms, and much poetic grace and aesthetic taste in the simple capital.



12.

13.—The letter "y" in the termination of a letter of Lord Fitzhardinge. Here we have extreme originality in the peculiar form of the letter, which is as much like a "j" as the letter for which



13.

it is intended. The ardor, energy and movement, which we generally see in the handwriting of distinguished military men, are all shown in this writing. Ambition, too, in its ascendant character and the angular form of the apostrophe between the letters "r" and "s" has the same character. The extreme length of the downstroke indicates an ardent imagination.

"The letter "Z" is rarely met with as a capital. When it does occur, it is like the letters g, c, i, l, one which leads pretentious and affected people to betray their weakness," says Miss Baughan. She continues, "Among the many letters from celebrated persons which we possess we have not been able to find one containing a capital letter "Z." We have, therefore, been obliged to take two examples from letters of more ordinary people.

14.—We have here an instance of what this letter is capable of indicating in the way of affectation and pretentious egotism; we should say that this person (a teacher of dancing), considers herself and her art of the first importance to

everybody. The letter, however, expresses a certain kindness in the rounded curves, but its exaggerated flourishes show want of taste and cultivation, and an undue amount of self-



14.

esteem. This person has a vulgar and showful taste, but she is, probably, generous even to prodigality, but with that degree of boastfulness that must make even her kindness oppressive to sensitive natures.

15.—The capital letter “Z” in a young

Frenchman's letter. Graceful and tender, yet not without a certain power in its firm downstroke. A certain simplicity in the lines announces sense of form and artistic feeling. The writer is a sculptor.”



15.

Thus have I taken up the whole of the letters of the alphabet, more fully than I intended, yet, I trust, only to make the explanations of general and special indications the more clear by a variety of illustrations.

Should I pursue the subject further it will be to enter upon an explanation of the signs typical of the different qualities of mind and character in handwritings taken as a whole.

REV. GEORGE W. JAMES, F. R. S. A.

DECLINE OF POPULATION IN RURAL MASSACHUSETTS—NO. 2.

WE return again to this sombre subject. We are to deal mostly, in this article, with dry statistics, but they will show whether people are crowding into cities and villages, or spreading out over the land to till the soil, or, at least, to have quiet residences.

I suppose the reader to know that small manufacturing places are becoming obsolete. Business has been going to the cities and into the hands of large corporations. Those delightful dells and groups of houses, where once axes, or shovels, or scythes, or something else were made, with not a large shop, nor a great factory—places in and around which there used to be centered so much that was genial, social, so much of the very nectar of human happiness—have largely become silent, going to decay. We will be thankful they are not utterly extinct. The city, or a large, noisy, ambitious village, has drawn the business to itself and concentrated it into great, towering affairs, all under one capital and head.

The census of Massachusetts for 1875 says: “The number of towns in which

the population has decreased is 142 . . . The losses have taken place in small farming towns, as a rule, remote from markets, and not well accommodated by railroads.

“Massachusetts, of the United States, stands seventh in rank as to total population. . . . For density of population this state stands first in rank, having, in 1875, 211.78 persons to the square mile.

“The population of Massachusetts for 1885 is put down as 2,153,597. “Now notice what follows: The center of population of the state is within *one mile* of the State House, while the geographical or territorial center is near Lake Quinsigamond, within the city of Worcester.”

What a preponderance Boston has! Its population is 390,406; voters, 89,851. Again: “The cities of Boston, Cambridge, Chelsea, and Somerville, and the towns of Arlington, Belmont, Brookline, Everett, Malden, Medford, Melrose, Revere, Watertown, Winchester and Winthrop, comprising territory within a radius of eight miles from the State House, contains 480,419 people, or

29 per cent. of the whole population of the state. The same cities and towns, in 1865, had a population of 352,577, showing a gain of 127,842, or 36 per cent. If the radius be extended to twelve miles from the State House, and to the cities and towns enumerated there be added the cities of Lynn and Newton, and the towns of Braintree, Dedham, Hyde Park, Hull, Lexington, Lynnfield, Milton, Nahant, Needham, Quincy, Reading, Saugus, Stoneham, Swamscott, Wakefield, Waltham and Woburn, it is found that Boston and territory within twelve miles have a population of 603,909, or 36 per cent. of the whole population of the state." Still again: "The relative population in cities and towns in the state *has changed the balance*, in 1875, to the side of the cities.; in 1865, the towns had 762,344, and the cities 504,687; *now* the cities show 836,933, and the towns 814,979; balance in favor of the cities was 257,657. . . . To summarize, the gain in the whole state since 1865 has been 30 per cent; in the cities 44 per cent., in the towns 18 per cent.—" Census of 1875.

The contrasting tendencies are growing more divergent, as we shall show by a few examples: Adams from 1865 to 1875 nearly doubled its population. It has large manufacturing interests. Florida, a farming town east of Adams, on the mountain, had in 1865 1173; in 1875, 572; a decrease of 601 in only ten years! In the above decade Worcester gained 19,262; Fitchburg, 4,171; Spencer, 2,427; Southbridge, 1,609. Since 1875 Worcester has gained 19,066. In the same time Charlton, twelve miles from Worcester, has lost 30.

Charlton is one of a line of fine farming towns, beginning with North Orange, going south-east through Athol, Petersham, Barre, Brookfield, and Dudley, and across Connecticut to the Sound. On this stretch, as elsewhere, wherever the sustentation of the number of inhabitants has depended upon the interest in agriculture there

has been a decrease, no matter what the contiguity to markets, or the excellence of the soil. "Of the towns and cities in Worcester county, 19 show a gain and 39 a loss." And this is the central county of the state, reaching from New Hampshire to Connecticut. The counties of Barnstable, Dukes and Nantucket have lost as counties. The soil is sandy, but they have the glorious advantages of the sea. Were the country new, and to be settled by such as the ancient Greeks or Phœnicians, into these counties would they crowd the most. The town of Barnstable declined 626 in population within ten years; Sandwich, 741. Sixteen towns in Franklin county, 17 in Berkshire are losing inhabitants. In the former, Shutesbury, not unknown to political agitations of earlier days, sitting upon its high hills, in ten years fell away by 230 persons. In Hampshire county Cummington, where Bryant was born, Pelham, which heard the notorious Burrows preach, and thirteen other towns are on a decline. In Middlesex county such towns as Dracut, Groton and Sudbury are losing. In Essex county we have to pity the townships, as Amesbury and old Andover, not to extend the list. In Norfolk county we must compassionate Dedham itself, sweet Milton, peaceful Sharon, Randolph, Houghton and Wrentham. In Plymouth county Abington has almost committed suicide, and we must commiserate Bridgewater, Duxbury, East Bridgewater, Halifax, Kingston, Lakeville, Marion, Mattapoisett, Pembroke, Plympton, Rochester and West Bridgewater. In Suffolk county even Winthrop is on a decline.

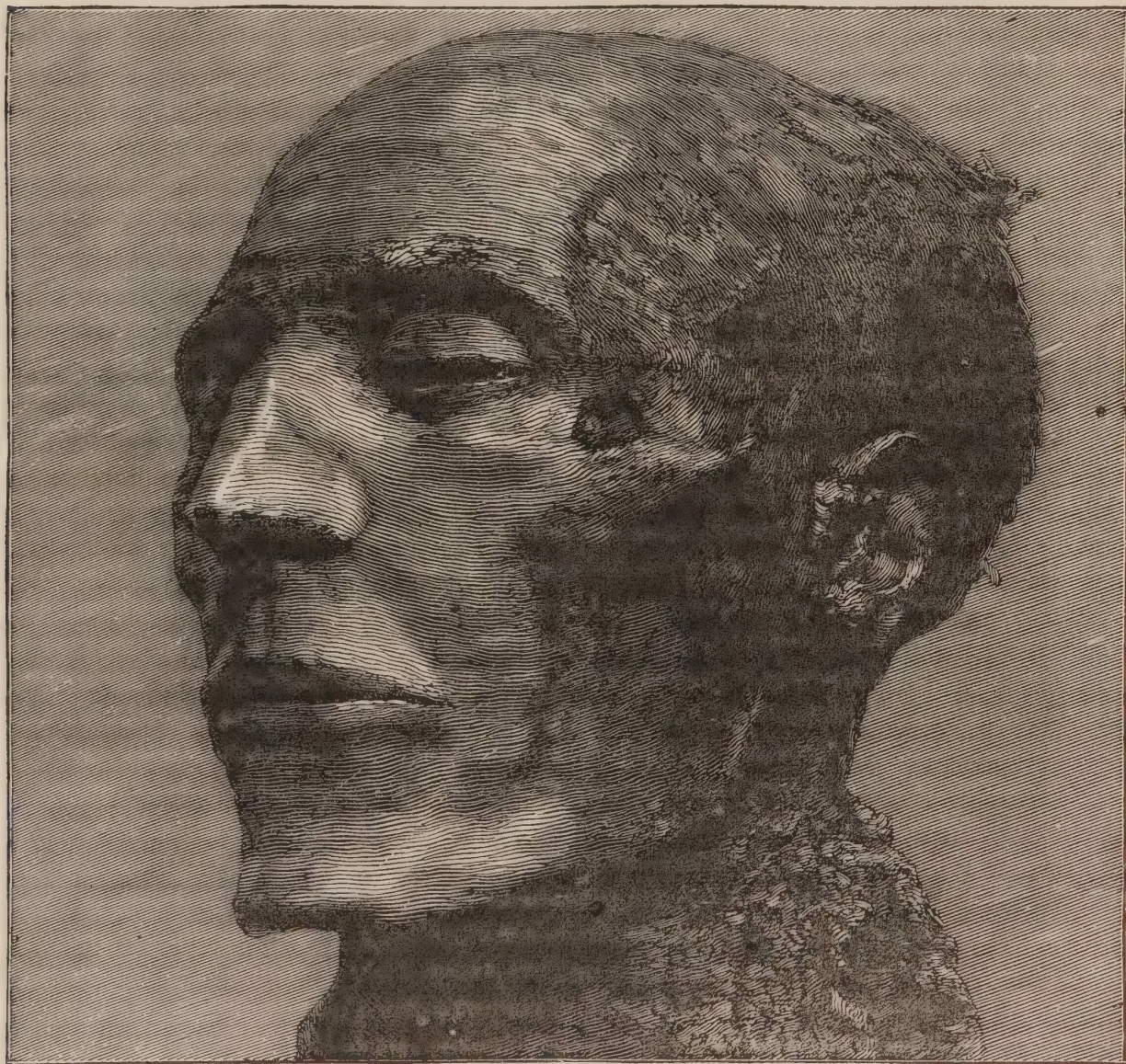
L. II.

WE are teachers all—as Emerson says:—"That which we are we shall teach, not voluntarily, but involuntarily. Thoughts come into our minds by avenues which we never left open, and thoughts go out of our minds through avenues which we never voluntarily opened. Character teaches over our head."

TWO ANCIENT PHAROAHs: THEIR CHARACTER AND RELATION TO HISTORY.

AN event of recent occurrence and one possessing many features of great interest to the learned world was the discovery of a considerable number of embalmed bodies, at the bottom of a subterranean sepulchre, in the plain of Thebes. From the inscriptions on the

Egypt, opened them in the presence of the Khedive and a large assembly of official and learned men. From inscriptions on the bandages with which the bodies were swathed it was found that two of them were the remains of Pharaohs, who ruled in the time of the



MUMMY OF RAMESES II.

caskets it was known that these bodies were of royal connection, and expectation became high as to the part they performed in the past ages of Egyptian history. The mummy cases were removed for safe keeping to the museum at Boulak, near Cairo, and there, on June 3d of this year, Prof. Maspero, Director General of the excavations, etc., of

Jewish captivity and of Moses, Seti I. and Ramesis II., or Sesostris, as he was called by the Greeks. Photographs were taken of these, and from the photographs the accompanying illustrations were engraved.

In the official report of Prof. Maspero it is said of the mummy No. 5233, that of the distinguished Ramesis :

The head is long and small in proportion to the body. The top of the skull is quite bare. On the temples there are a few sparse hairs, but at the poll the hair is quite thick, forming smooth, straight locks about two inches in length. White at the time of death, they have been dyed a light yellow by the spices

The jawbone is massive and strong ; the chin very prominent ; the mouth small but thick lipped. The teeth worn and very brittle, but white and well preserved. The mustache and beard are thin. They seem to have been kept shaven during life, but were probably allowed to grow during the king's last



MUMMY OF SETI I.

used in embalmment. The forehead is low and narrow ; the brow-ridge prominent ; the eyebrows are thick and white ; the eyes are small and close together ; the nose is long, thin, hooked like the noses of the Bourbons. The temples are sunken ; the cheekbones very prominent ; the ears round, standing far out from the head, and pierced, like those of a woman, for the wearing of earrings.

illness ; or they may have grown after death. The hairs are white, like those of the head and eyebrows, but are harsh and bristly, and a tenth of an inch in length. The skin is of earthy brown spotted with black. Finally, it may be said the face of the mummy gives a fair idea of the living king. The expression is unintellectual, perhaps slightly animal ; but even under the somewhat

grotesque disguise of mummification, there is plainly to be seen an air of sovereign majesty, of resolve, and of pride. The rest of the body is as well preserved as the head; but in consequence of the reduction of the tissues, its external aspect is less life-like. The neck is no thicker than the vertebral column. The chest is broad; the shoulders are square; the arms are crossed upon the breast; the hands are small and dyed with henna; and the wound in the left side through which the embalmers extracted the viscera is large and open.

The other mummy, that of Seti I., the father of Rameses, shows, if anything, a more kindly type of organization, the forehead being higher, broader, and the features softer in outline. He was "the new king who knew not Joseph," as recorded in Exodus 1:8. He belonged to a new dynasty, wholly unconnected with that under which Joseph had attained to high office. It was he who built, to protect his frontier, the great wall and huge

arsenals called in Exodus "treasure or store cities" (Ex. 1:11). As he grew older he associated with himself on the throne his son, Rameses, then a boy of twelve years of age, who reigned jointly with him for about twenty years. When Seti died Rameses reigned alone for forty-seven years, so that in all his reign covered a period of sixty-seven years. He was the Pharaoh whose daughter adopted Moses, and who ordered the murder of the children (Ex. 2:15).

It is a startling revelation of the hoary past that is presented us in these human relics of an Egyptian period, fully three thousand years ago—relics so well preserved that we can gather correct data of the appearance, age and physical characteristics of them when living. The new testimony they furnish of the truth of certain historical statements that have been much disputed is most valuable.

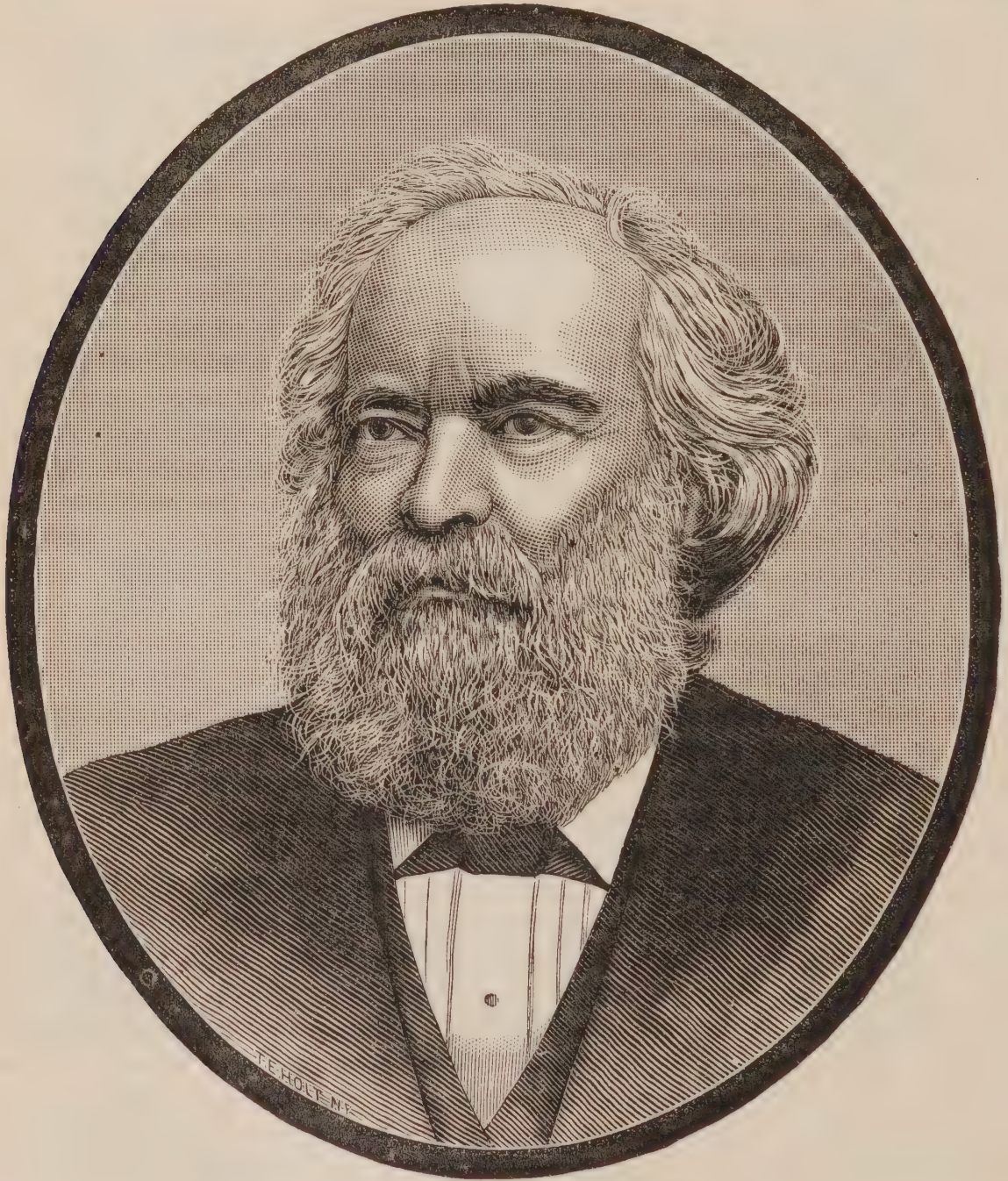
A WORTHY MAN.

JOHAN DOUGALL, who died in Flushing, L. I., August 19, 1886, was born in Paisley, Scotland, a large manufacturing town in the vicinity of Glasgow, on the 8th of July, 1808. He came of a godly and thrifty ancestry. Duncan Dougall, his grandfather, who was removed from him in age by only thirty-six years, was the son of a well-to-do weaver. He was a muslin manufacturer, an enthusiastic Tory in the midst of surging Radicalism, and a man of imperious but affectionate nature, passionately fond of flowers, a taste which descended to his grandchildren. John Dougall, his son, and the father of the American editor, was the greatest reader in Paisley, and a keen reformer in politics. He gave his two boys a desultory education, including almost unlimited reading, and a boy's literary club met at his own house. Out of the six members of this club one be-

came a poet and five became journalists of note. The elder son, John Dougall, was obliged, at the age of fifteen, to manage his father's manufacturing business during the latter's illness. While still a youth his mind was turned to foreign countries as a field for enterprise. He studied Spanish in order to go to South America, but abandoned that idea. Then he considered the commercial advantages of Beyrout, in Syria. Finally he sailed to Canada. This occurred in 1826, his age being 18; and he brought with him a consignment of goods for the establishment of a branch house and commission business in Montreal. The travelling which this business involved, and a winter spent in the backwoods of Lanark County, familiarized him with the embryos of present cities and with pioneer life in Canada. He had been always a practical abstainer, and though

at that time abstinence was often offensive and moderation was not yet heard of, he continued so for a year or more after coming to Canada. When "temperance"—that is, abstinence from strong drink and the use of wine and beer in great moderation—was preached in Montreal in 1828 by the Rev. Mr. Christmas,

to his large and prosperous business till he started the *Witness* as a weekly in 1846. In 1835 the total-abstinence pledge was exclusively adopted. In 1838 under the preaching of Dr. Kirk, of Boston, who visited Montreal, the piety of his boyhood was revived. Shortly after his marriage, 1840, he joined the Congregational



The Late JOHN DOUGALL.

his judgment was convinced; but he did not sign the pledge till some four years later, when in 1832 he became an active member of the Montreal Temperance Society, then formed. He became editor of the *Canada Temperance Advocate*, which he carried on in addition

Church. The *Witness* was a weekly paper for ten years; it then became a semi-weekly, then a tri-weekly and weekly. In 1860 a daily edition was added at the low price of one half-penny; and though maintaining the strict religious and temperance character of its predecessors,

it rapidly reached, through the interest excited by the American war, what was then an unprecedented and startling circulation. Such was the early success of this venture in point of acceptance with the people that its founder never ceased to contrive how to secure the establishment of daily papers of similar character in other places. He visited several cities; spoke at an International Young Men's Christian Association in behalf of cheap Christian daily newspapers; addressed, on the same subject, several important religious gatherings, and conferred with the editors of religious weeklies about beginning daily editions; but found no one prepared to try the experiment. Owing largely, perhaps, to the failure of the New York

World to carry out a similar religious intention of its founders, the proposal was not carried out till 1871, when Mr. Dougall was practically encouraged by a gentleman of means to commence the enterprise himself. The New York *Daily Witness* was never self-sustaining; and after very heavy expenditures upon it, when it had almost reached a paying point, it succumbed during the depression of 1878. The New York

Weekly Witness, however, which was commenced in 1882, immediately attained

a phenomenal success. It rose rapidly to a circulation of 50,000, then steadily to 100,000, but owing to various causes, especially the advocacy of unpopular measures, it has since lost part of the circulation which had been gained by great and persistent efforts. In 1876 the *Sabbath Reading* was commenced and Mr. Dougall had the gratification of seeing it widely introduced and highly appreciated. In 1880 he started *Gems of Poetry*, which, after occupying a unique position for several years, proved unsuccessful and was abandoned. In 1884 *The Pioneer* was added to the list of *Witness* publications; it has attained a large circulation and acceptably fills a special field. Useful as are these minor publications, the crowning achievement of his life was the establishment of the New York *Witness*, which, it is believed, exercises an influence for good second to that of no other publication in this country. This brief sketch of the career of the founder of the *Witness* can convey no idea of the struggles, efforts, and anxieties which have been the real facts of the life recorded: still less can it exhibit the fruits of a life-long sowing of good seed in so many thousand homes. He merits a lasting memorial.

FACULTY IN ANIMALS.

A BRIGHT little black-and-tan dog just now laid his nose in my hand and looked up into my face with eyes in which shone so much clearness, affection, and confidence, that I can not help thinking that we are apt to underestimate the intellectual principle in this and other animals of the lower creation.

We call them dumb animals; and so they are, not only because they have not the power of articulating words, at least words "understood of the people," but in the old German meaning of the term—that is, stupid, unintelligent, and unreasoning.

These animals often evince a surprising degree of sharpness and apparent intelligence, which we are accustomed to dispose of easily by accrediting it to instinct. But the difference between this and instinct is very clear. The birds fly southward in the fall of the year and the bees lay up honey in the summer by instinct. The swallows that built their nests among the rafters of Noah's ark—built them precisely as they built them under the eaves of some poor man's cottage last summer. The bees constructed their waxen combs on Mount Hybla in the days of Plato on precisely the same

geometrical principles that they worked in the neighboring apiary a few months ago. This is instinct. But it is altogether different from those displays of higher intelligence which some species of the lower animals frequently make. It would not be difficult to fill these pages with anecdotes of dogs, horses, and other animals; but it is our desire rather to consider briefly the intellectual powers which these anecdotes often reveal.

A bird returns to its nest and the bee to its hive by an unerring instinct; but the dog finds his way back to his master's door, after his ramble through the fields or streets, just as his master would do—by the exercise of memory, perception, and judgment. This is clear; for instinct never makes a mistake, but the dog sometimes becomes lost, or finds his way back only with difficulty.

That dogs have the faculties of perception and memory will not be disputed; but they also have some imaginative faculty, and some thought, even of the future. It is a common thing for a dog when lying asleep to utter a low, half-suppressed bark. He is undoubtedly dreaming, and these sounds are as much the evidence of dreams as are the mutterings of people who talk in their sleep. The bee lays up a store of honey and the squirrel his hoard of nuts by instinct; but it is not instinct that leads a dog to bury a bone, that he has no present need for, in the ground. He lays it away just as a prudent man would lay aside some part of his surplus for a time of need.

Not only do dogs, but some other animals as well, evince certain mental powers in a somewhat high degree. A horse was in the habit of putting down the bars of a field, going around to the back of the barn, pulling out a pin that fastened the door, and thus letting himself into his stall. This was not instinct; it was the exercise of just such mental faculties as would have been employed by a man in doing the same thing. A

cow belonging to the writer was accustomed to receive a bucket of slops in the morning at a neighbor's house across the way; if the bucket was not forthcoming at about the usual time she would beat with her horns against the door to call the attention of the family to their neglect. This was not instinct at all, but the product of observation and judgment. She had no doubt observed people knocking at doors, and the usual result, and her judgment suggested that this was a proper occasion to knock. Stories showing the wonderful sagacity of the elephant are numerous. There is a well known anecdote of this animal, which shows not only a high degree of reason, but even a considerable knowledge of the principles of physical science. An elephant on exhibition in London was accustomed to pick up small coins that were thrown to him for that purpose. On one occasion a sixpence was thrown, which rolled beyond his reach, and lay near the wall of the room. The elephant deliberated a moment, then extending his trunk, he blew with great force against the wall a little above and just beyond the sixpence, when the coin was forced by the current of air within the animal's reach, and he picked it up. Now in this case a train of reasoning passed through the elephant's mind, such as would pass through the mind of an intelligent man, and involved some knowledge of angles, reaction, counter-currents, etc.

Such anecdotes, we say, might be adduced in sufficient numbers to fill these pages; but these, we think, are enough to show that the lower animals are in all probability endowed with a greater share of intellect than men are in the habit of imputing to them.

T. J. CHAPMAN.

Nature seems to exist for the excellent. The world is upheld by the veracity of good men: they make the earth wholesome. We call our children and our lands by their names and build monuments to them.

MODERN SOCIOLOGY.

THE times change rapidly. The reign of the old "Dismal Science" of "Political Economy" is about over. Yet it was a sort of "Schoolmaster to bring us to Christ." When Adam Smith swerved from his known duty and invented the English political economy, or the Manchester school of economics, he was working in the line of Divine Providence. That hot-house forcing system has hurried the development of wealth, science, art, inventions, and discovery as a decenter system would not have done. The hottest competition has been let loose by it, to hurry and hurry, develop and devastate Christendom, until its mission is about fulfilled. When I stood in the gallery of Machinery Hall, in the Centennial Exhibition, in Philadelphia, I said, "Here, now, is the physical basis for the long-propheesied Millennium."

The mad rush of modern competition, with its doctrines of "*Laissez faire*" supply and demand, and "the Devil take the hindmost" has developed such wonderful mechanism and other things calculated to make life easy and pleasant, that there is no longer much occasion for misery among the higher human races if only "man to man would brother be." Indeed, steam and telegraph now make it inexcusable that famine, at least, should exist anywhere on the face of the globe.

The largest present need is that these great fruits of human invention and industry should be brought under the control of the common people. As it is, a rich man, especially an American rich man, is a veritable demi-god, dwelling in an Aladdin palace and able to summon all the discovered good things of the earth to minister to his comfort; while the poor man, whose natural heritage in the fruits of discovery has been wrested from him by the few shrewd and forceful, is often, in spite of supreme industry and honesty, no better off than

his naked, savage ancestors. He is just able to maintain the spark of life in him and that the ancestral savage could do.

But there are many well-meaning people who suppose that the Manchester school of political economy is one of the finest developments of modern times. The fact is, that these "regular" political economists are losing faith in their system. They attempted lately to celebrate the centennial of the publication of Adam Smith's "Wealth of Nations," but on that occasion Mr. Lowe said: "The triumphs which have been gained have been rather in demolishing that which has been found to be bad and erroneous than in establishing new truth.

Professor Jevons said, afterwards, in a lecture before the University of London: "To a certain extent I agree with Mr. Lowe, that there is much in the present position of our science to cause despondency. A very general impression to this effect seems to exist. Some of the newspapers hinted, in reference to the centenary dinner, that the political economists had better be celebrating the obsequies of their science than its jubilee. **** I believe that the general public would be happier in their minds for a little time if political economy could be showed up as imposture, like the greater part of what is called Spiritualism. It must be allowed, too, that there have been, for some years back, premonitory symptoms of disruption of the old orthodox school of economists. Respect for the name of Ricardo and Mill seems no longer able to preserve unanimity. J. S. Mill himself, in the later years of his life, gave up one of the doctrines on which he had placed much importance in his work. ***** Mr. Bagehot remarks that young men ask whether this science, as it claims to be, will harmonize with what we now know to be sciences, or bear to be tried as we now try sciences; and they are not sure of the answer. In short, it comes to this,

that one hundred years after the first publication of "The Wealth of Nations" we find the state of the science to be almost chaotic. There is certainly less agreement now about what political economy is than there was thirty or forty years ago."

When such is the condition of thought among the finest minds in England, concerning the old political economy, we need not be surprised to find that while such men as Sumner, of Yale, David A. Wells and Godkins, of the *New York Evening Post*, stand up for those atrocious, inhuman and unchristian doctrines, there is a decided revolt against them among the best balanced minds. An association has been formed, lately, including many prominent professors in colleges, the object of which is to formulate and make popular a true Sociology or Social Science; that instead of brutally busying itself in calculating how the greatest amount of wealth may be gathered into the coffers of the rich men of a nation, with at the same time the least possible distribution to the poor, will it concern itself with reorganizing society upon the true "data of ethics," the known natural rights and mutual duties of men.

There is much to encourage those inclined to work for the introduction of a true Sociology. All classes of Christendom are full of unrest. The more conscientious of the rich and prosperous are conscious that they have been robbing the poor; but do not see any feasible plan for restoring the plunder—any plan that would be other than pouring water into a sieve. The philosophers are breaking out of their old ruts and inventing the needed plans. Through the thoroughness of common-school education, the plenitude of newspapers and the rapidity and universality of societary motion and intercourse, the working people are becoming thoroughly informed upon many subjects, and especially as to human rights and duties.

The immense development of labor

saving machinery is bringing the world face to face with hitherto unheard of problems. In view of the fact that a few months of the full use of the existing machinery, in any branch of manufactures, gluts the market with that particular style of goods, the question is everywhere asked "What are to be the future relations of manufacturers and 'hands'?" While the price of labor has been well maintained in many branches, the number of men liable to be thrown out of work, and only working a small part of the year, steadily increases; and women and children are everywhere replacing men in the light crafts.

Our ruling and leading classes see that heroic remedies are needed for these growing evils. While the college professors of an advanced type, like Ely, of Smithsonian Institute, are getting their heads together to formulate a real Sociology, and writing supposed exhaustive treatises on socialism, anarchy, nihilism, etc., the prominent preachers, such as Talmadge, Crosby, Newton, Abbot, Bishop Potter, John Hall, and Rylance have, at least, got to the point reached thirty years ago by Kingsley, Maurice and the other broad church clergy of the English Church. They see that the preachers must take a hand in settling the labor question, or entirely lose their influence. Some of them even advocate a return to the Bible Communism of the Primitive Church. Bishop Potter lashes his clergy with a mild ferocity, urging them to stay the tide of pride, luxury, money-grabbing, oppression of the poor, etc.; but prudently refraining from telling them specifically how this is to be done.

Lyman Abbott, editor of *The Christian Union* rouses himself to warn and threaten the churches, in a way that would have astonished them twenty years ago; but is now received as a matter of course. Among the clergy Heber Newton is the most advanced radical.

The mild-mannered Social Science

Association (which seems to have been organized a number of years ago especially to appropriate that name and that field, in order to present the discussion and development of anything like basic Sociology) holds its annual meetings, where ponderous papers are read upon everything except social science. It has worn itself out in these heavy efforts, and will give place to newer and more radical societies.

A notable sign of the times is seen in the uneasiness manifested in the Preachers' Association. Feeling that they are largely losing their hold upon the masses, the Protestant clergy are crying out to such men as Henry George and John Swinton, "What shall we do to be saved?" from dry-rot and oblivion.

But ingrained human selfishness has been so thoroughly fostered for the past hundred years by the Manchester political economy that the struggle to institute a high sociology, based upon unselfishness, will be a hard one. The majority of the strong and shrewd and wealthy are firmly convinced that their faculties have been given to them simply to further their private enjoyment. They concede that certain persons should lead self-sacrificing lives and devote their powers largely to furthering the general welfare. Such a destiny they mark out for poets, clergymen, artists, etc., but for themselves humanity is fair game for them—their natural prey; from it they may rightfully squeeze all they can.

No very great advance toward the realization of a true social science can take place until great numbers of the strong men and women are convinced that their strength is given to them to be used for the "lifting of the lowly."

The absurd theory has been fostered that there is equality before the law, and fair opportunity for every one to "get on" in this country. The eyes of thousands of thoughtful people were opened to the fallacy of this notion in 1877. The *New York Times* then said: "We thought that there was a fair chance for

everybody in this country until we heard of the misery of those Pennsylvania miners."

But no aristocracy ever voluntarily relinquished its prerogatives. The most serious question before the American nation, at present, is: Will the strong men of the land voluntarily relax their grip upon the throats of the weak, and thus do differently from what has been done by the strong of all preceding nations?

In the first Fremont campaign the "good sort of people" were full of the idea of compromise and Union-shrieking: the Abolitionists seemed to them horrible traitors. It took four years of bloody war to drive the truth as to black men's rights into the public mind. It often seems now that the truth as to white men's rights can not become generally accepted save through a similar blood baptism. Yet this is very absurd. For surely the coherence of the masses to enforce their rights by the bullet would be equally effective to enforce them by the ballot. A large preponderance of musket-bearers on the side of popular rights would be needed to insure securing them by force of arms. The same preponderance at the ballot-box would have the same result in an infinitely superior way. Yet, strange to say, there still lingers so much brutality, even among native Americans in the North, that thousands of them seem ready, at times, to join with misguided foreign Anarchists and Nihilists, to inaugurate bloody and needless revolution; while they take but a languid interest in the peaceable plan of righting their wrongs by voting.

So this question becomes more and more serious:—Will the well-meaning, educated, orderly citizens find out what the rights of the masses are in time to prevent a bloody revolution?

We are making history fast; and with a few more leaders like Heber Newton, who even advocates the holding of all mines, that are not yet worked, for the

use and benefit of the whole nation, the above question could soon receive an affirmative answer.

But all roads lead to Rome now. The most prominent feature of the rising sociology is, naturally enough, closer association of man in production, distribution and social affairs.

In 1858, when I published the first special document on the English (Rochdale) co-operation, everybody was booming on the line of individual grabbing and grubbing, no co-operation was wanted. But latterly, and more every year, the eyes of thoughtful well-wishers of humanity are turned hopefully toward various forms of co-operative production and distribution and industrial partnership. Hundreds of co-operative stores have been started with varied success, especially by the Grangers. The Knights of Labor make co-operation their watchword, though they have made but bungling efforts at its practical realization.

Again, when, in 1872, I published the first special document on "The Familistere of Guise," in France, the great co-operative institution, where 900 foundrymen and their families have lived in actual palaces for twenty-five years, with most of the comforts of the rich, the grand story fell upon dull ears. But see how it is now. The *New York Herald*, and *Commercial Advertiser*, and other papers have lately published flaming accounts of that wonderful place, illustra-

ted by numerous engravings; and the papers all over the country never tire of printing one and two-column articles about it.

Meanwhile, manufacturers are closely studying the Guise plan, and the industrial partnerships of France and England. Many are imitating the partnerships, and one, at least, announces that he is trying to rival Guise.

Yes, the prospect for the adoption of a true sociology in this country is good. It will include the almost total removal of the wage-system, except as a basis for co-operative dividends. When we find such hard-headed business men as Stephen B. Elkins saying that "the wage-system must go," we see the beginning of the end. Our political life is at least nominally democratic; our industrial life, autocratic. The two systems can not much longer dwell side by side. Either our politics must become entirely autocratic or our industries democratic. As a Baptist minister of Massachusetts, says:

"The great need is that *town-meeting* should come into control of the factory; that the workers should own and govern the industrial institutions; and simply elect those clever men (at good salaries) to guide the works, who now own them and practically the 'hands' engaged in them."

The industrial czar must go, or the ballot must go. SAMUEL LEAVITT.

LABOR AND CAPITAL.

THEY came into the world together,
Bound by a stout unswerving tether.
And thus, they're doomed to live forever;
Although they try the bond to sever,
The bond of Jove!

They've fiercely fought the ages through,
Until the old is changed to new;—
And yet, one could not live alone,—
Bound, Siamese-like,—two in one—
The Twins of Jove!

Labor, with brawny shoulders wide,—
And sturdy limbs to earn the tide:
Yet, no material does he own—
His strength and skill are his alone,—
Willed so by Jove!

But Capital is not so stout,—
Yet bonds and gold his ponets stick out;
His brain is keen, his judgment clear;
His plans want Labor always near—
Decreed by Jove!

Says Labor: "Work deserves more gold;
The money-bag you shall not hold!"
Says Capital: "You've got enough;
Such folks as you are strong and tough;
That's wealth from Jove!"

He buttons up his pockets tight;
And Labor cries: "It is not right,
This greed!"—and so, again they fight,
These brother twins,—a ghastly sight—
Defying Jove!

Each one would fain the other choke,
And put his brother in a poke;
They've tried to find a place that's weak,
And thought the tegument to break,
Made fast by Jove!

But, since, apart they can not be,—
And vain their efforts to be free,
They'll surely find their interest lies
In making *mutual* Compromise,
As willed by Jove!

GRACE H. HERR.

A BOY FULL OF GRIT.

"THE stage has gone, sir, but there's a widder lives here—and she has got a boy, and he'll drive you over. He's a nice fellow, and Dea. Ball lets him have his team for a trifle, and we like to get him a job whenever we can."

It was a hot day in July. Away up among the hills that make the lower slopes of Monadnock mountain a friend lay very ill. In order to reach his temporary home, one must take an early train for the nearest station, and trust to the lumbering old dusty coach that made a daily trip to Keene. The train was late, and the stage, after waiting a while, was gone. The landlord of the little white hotel appeared in his shirt sleeves, and, leaning his elbow on the balcony rail, dropped down on the hot and thirsty traveler what comfort could be extracted from the opening sentence of my sketch.

"Would he not come in and have some dinner?"

"Yes."

"Would he send round for the deacon's team?"

"Yes."

"And the boy?"

"Yes."

And the dinner was eaten, and the "team" came round—an open buggy and an old white horse, and just as we were seated the door of the little brown house over the way opened, and out rushed the "widder's boy."

In his mouth was the last morsel of his dinner. He had learned evidently how to "eat and run." His feet were clad in last winter's much worn boots, whose wrinkled, yellow legs refused to stay modestly within the limits of his

trousers. As his legs flew forward his arms flew backward in an ineffectual struggle to get himself inside of a jacket that was much too short in the sleeves.

"There he is," said the hostler; "there's widder Beebe's boy. I told him I'd hold the deacon's horse while he went to get a bite."

The horse did not look as if he needed to be held, but the hostler got his dime, and the boy approached in time to relieve my mind as to whether he would conquer the jacket, or the jacket would conquer him, and turn him wrong side out.

He was sunbrowned and freckled, large mouthed, and red haired, a homely, plain, patched, little Yankee boy; and yet, as we rode along through the deep summer bloom and fragrance of the jaded road winding up the long hills in the glow of the afternoon sun, I learned such a lesson from that little fellow at my side as I shall not soon forget.

He did not look much like a minister, as he sat stooping forward a little, whisking the flies from the deacon's horse, but his sermon was one which might have been heard by all the boys in the land. He did not know he was preaching, or he would have stopped I think. As it was I had to spur him on now and then by questions, to get him to tell me all about himself.

"My father died, you see, and left mother the little brown house opposite the tavern. You saw it, didn't you, sir—the one with the lilac bushes under the window? Father was sick a long time, and when he could not work he had to raise money on the house. Dea-

con Ball let him have it, a little at a time, and when father was gone mother found the money owed was almost three hundred dollars. At first she thought she would have to give up the house, but the deacon said: 'Let us wait awhile,' and he turned to me, and patted me on the head, and said: 'When Johnny gets big enough to earn something I shall expect him to pay it.' I was only nine years old then, but now I am thirteen; I remembered it, and remember how mother cried, and said: 'Yes, deacon, Johnny's my only hope now;' and I wondered what I could do. I really felt as if I ought to commence at once, and yet I could not think of anything I could do."

"Well, what did you do?" I asked, quickly, for I was afraid he would stop, and I wanted to hear the rest.

"Well, at first I did very funny things for a boy. My mother used to knit socks to sell, and she sewed the rags to make rag carpet, and—I helped."

"How? What could you do?"

"Well, the people who would like a carpet could not always get time to make it. So I went from house to house among the farmers, and took home their rags, old coats, and everything they had, and out in the woodshed I ripped and cut them up. Then mother sewed them, and sometimes I sewed some, too, and then I rolled them into balls and took them back to the owners, all ready to be woven into carpets."

"But did that pay you for your work?"

"Oh, yes; we got so much a pound, and I used to feel quite like a merchant, when I weighed them out myself with one of our steel yards. But that was only one way; we have two or three old apple trees out in the backyard by the wall, and we dried the apples and sold them. Then some of the farmers who had a good many apples began to send them to us to dry, and we paid them so many pounds all dried, and then had all the rest to sell."

"But surely you could not do much in ways like this?"

"No, not much, but something; and then we had the knitting."

"Did you knit?"

"Not at first, but after a while mother began to have the rheumatism in her hands, and the joints became swollen and the fingers twisted, and it hurt her to move them. Then I learned to knit; before that I always wound the yarn for her. I had to learn to sew a little, too, for mother did not like to see holes without patches."

And he looked half smiling at the specimens on his own knees.

"But you did not mend those?" I asked.

"Yes, sir, but I was in a hurry, and mother said it was not done as it ought to be. They had just been washed, and I could not wait for them to dry."

"Who washed them?"

"I did, and ironed them, too. I can wash and iron almost as well as mother could."

"But she does not let you do it?"

"She don't mean to have me, but how can she help it? She can hardly use her hands at all, and some days her feet are so bad she can hardly leave her chair. So I have had to learn to make the beds, and scrub the floor, and wash the dishes, and I can cook almost as well as a girl."

"Is it possible? I shall have to take supper with you on my way back to the city, and test your skill."

Johnny blushed, and I added:

"It's a pity, my boy, that you have no sister."

"I had one," he said, gently, "but she died; and—if she had lived, I wouldn't have wished her to lift and bring wood and water, and scrub, as poor mother always did. Sometimes I wish I could have sprung all the way from a baby to a man. It's such slow work growing up, and it was while mother was waiting for us to grow up that she worked so hard."

"But, my dear boy, you can't expect

to be son and daughter and mother, all in one. You can not do the work for the whole family?"

"Yes, I can; it isn't much, and I'm going to do it and the work my father left undone. I'm going to pay Deacon Ball that mortgage, if I live."

"Heaven grant you may," I said, fervently, under my breath, "for not many mothers have such a son."

"Mother does not know I mean to do it, and she is very anxious I should go to school, and I mean to go some time; but I know where the boys in my class are studying, and I get the lessons at home. Mother reads them to me out of the book, while I am washing the dishes or doing her work, and when we come to anything we can't make out I take it over to the teacher in the evening, and she is very kind—she tells."

Very kind! Who would not be kind to such a boy? I felt the tears coming to my eyes at such a sudden vision of a son doing a girl's work, while his poor mother held the book in her twisted hands, and tried to help him to learn.

"But all this does not help to earn money, Johnny. How do you expect to save if you give your time indoors?"

"Oh, I don't do girl's work all day; no, indeed. I have worked out my taxes on the road. It wasn't much, but I helped the men build a stone wall down by the river; and Deacon Ball lets me do a great many days' work for him, and when I get a chance to take any one from the hotel to ride, he lets me have his team for almost nothing, and I pay him whatever I make. And I work on the farm with the men in summer; and I have a cow of my own, and I sell milk at the tavern; and we have some hens, too, and we sell the eggs. And in the fall I cut and pile wood in the sheds for people who haven't any boys—and there's a good many people about here who haven't any boys," he added, thoughtfully, brushing a fly from the old white horse with the tip of his whip.

After this, we fell into silence, and rode on through the sweet New England roads, with Monadnock rising before us ever nearer and more majestic. It impressed me with a sense of its rugged strength—one of the hills "rock-ribbed and ancient as the sun"; but I glanced from the mountain to the little red-headed morsel of humanity at my side, with a sort of recognition of their kinship. Somehow they seemed to belong together. I felt as if the same sturdy stuff was in them both. It was only a fancy, but it was so confirmed the next day; for when I came back to town after seeing my invalid friend I went to call on Deacon Ball. I found the deacon white-haired and kindly-faced. He kept the village store and owned a pretty house, and was very "well-to-do." Naturally we talked of Johnny, and the deacon said to me, with tears in his watery blue eyes:

"Why, bless your heart, sir, you don't think I'm going to take his money, do you? The only son of his mother, and she a widder, and all tied up into double bow-knots with the rheumatics besides! True enough, I let the father have the money, and my wife, she says, says she to me, 'Well, deacon, my dear, we've neither chick nor child, and we shall be just as well off a hundred years hence if the widder never pays a cent; but 'cording to my calklation it's better to let the boy think he's paying.' Says she to me, 'Deacon, you might as well try to keep a barrel of vinegar from working as to keep that boy. It's the mother in him, and it's got to work.' We think a good deal of the widder, Mandy and me. I did, before I ever saw Mandy; but for all that, we hold the mortgage, and Johnny wants to work it out. Mandy and me, we are agoin' to let him work."

I turned away, for I was to sup at Johnny's house; but before I went I asked the deacon how much Johnny had already paid.

"Well, I don't know; Mandy knows,

I pass it to her, and she keeps the book. Drop in before you go to the train, and I'll show it to you."

I dropped in and the deacon showed me the account. It was the book of a savings bank of a neighboring town, and on its pages were credits of all the little sums the boy had earned or paid; and I saw they were standing to Widow Beebe's name. I grasped the deacon's hand. He was looking away over the house-tops to where Monadnock was smiling under the good-night kisses of the sun.

"Good-bye, sir, good-bye!" he said, returning my squeeze with interest. "Much obleeged, I'm sure, Mandy and me, too; but dont you be worried about Johnny! When we see it, we know the real stuff it takes to make a man—and Johnny has got it; Johnny's like the mountain over there—chuck full of grit and lots of back bone."

INDIAN POLITENESS.—Some Indian schoolboys, says the "American Missionary," found their teacher had a very great aversion to frogs. To them it was a continual source of amusement to see her run away from them. One day a boy caught one, and shut it up in the table drawer. The teacher entered the room. All were in order, but, when she opened the drawer, the frog, glad to gain its liberty, leaped out upon the table, and the teacher made great ado. One of the boys, in a gentlemanly way, took up the frog, carried it to the door, and threw it out. No sign of enjoyment could be discerned in their faces. They remained through school hours, retaining their solemn dignity. Afterward, as they told of it, they laughed until the tears came, laughed over and over again as they remembered the dismay of the teacher. Why did they not laugh at first? They had not yet come into the ways of white men enough to realize that we would excuse rudeness in our pupils, even under these circumstances, and they consider it rude to laugh

aloud, or to laugh at all, at the expense of another in the other's presence.

OUR FAITH.

THE purple bars that paint the morn
Dissolve as we admire;
The drops that decorate the corn
Go out like sparks of fire.

The star,—the fair ethereal eye—
That rolls so full at night,
Begins to close when morn is nigh,
Goes out in full daylight.

The brook that bounds to meet the spring,
As lovers spring to press,
Mid summer's heat forgets to sing
And sinks to nothingness.

Our little child that laughed at night,
We kissed it o'er and o'er,
When morning came with rosy light
Could smile and laugh no more.

And are they gone forever? No;
To-morrow morn the light,
The skies, the dew will richly glow,
The star will burn to-night.

Next year the happy brook will sing,
And far beyond the blue,
Mid scenes of everlasting spring,
Our boy is smiling, too.

J. I. N. JOHNSTON.

A WOMAN'S COURAGE. — The San Diego (Cal.) *Herald* tells the following feat by a young lady named Miss Lawrence: "Last Tuesday a band of wild cattle were being driven through the streets, when one of them singled out a child at play and started for it. The vaquero, who was drunk, tumbled from his horse as he attempted to turn the furious animal. At this moment Miss Lawrence came along, and taking in the situation at a glance, sprang into the vacant saddle, ran down the wild steer, threw her shawl over its head just as it was about to gore the child, then rode up to the child, and without leaving her saddle, reached and lifted it into her lap, and carried it off in safety. This was not only an act of heroism, but an exhibition of horsemanship such as few persons could equal.



THE SENSE OF TOUCH.

OF all the senses we possess the sense of touch is the most complex and the least understood. Blindness and deafness are common, and we all can more or less appreciate the nature and extent of these afflictions. But who ever thinks how he would be affected by deprivation of the capacity to feel, inability to distinguish by touch between smoothness and roughness, heat and cold, or to receive the various sensations of pain and pleasure which reach us through the surface of the body? How is it that the same finger which tells us that a substance is hard or soft, tells us also that it is hot or cold? Have we, as some physiologists aver, a sixth sense, that of temperature? If not, how comes it that a single touch of the finger conveys to the brain in the same instant two distinct impressions, perhaps three, for the substance may be wet, as well as hot or cold, and hard or soft? Physiologists can not tell us; they know that the sensations so conveyed are separable, and that the ways by which they reach the brain are not the same. The subject is by no means new, but fresh light has lately been thrown on it by the researches of two Swiss savants, M. A. Herzen and Prof. Soret. The observations of these gentlemen are highly interesting, and of the utmost importance in their relation to training of the blind.

Pressure on a limb—as, for instance, when we fall asleep lying on one of our arms—if continued for some time, makes it more or less numb. It gradually loses the power of transmitting sensations to the brain. According to the observations of M. Herzen, the first sense lost is that of touch, the second that of cold, the third that of pain, the last that of heat. He says that when one of his arms is so torpid that he has to feel for it with the other, and it is impervious to a pinch or a prick, it is still sensible to the warmth of the other hand. If the pressure be prolonged, the limb ceases to be affected even by heat. There are people, otherwise healthy, whose capacity of feeling is so far from complete that they never know what it is to be cold so far as sensations conveyed by the skin are concerned. Winter is the same to them as summer. This probably arises from an abnormal condition of the spinal cord. But M. Herzen has not rested content with observations on his own species; he has made experiments on the lower animals classified several of the sensations of touch, and discovered their localizations in the organism; and Professor Soret, taking up the psychological branch of the subject, has tried to find out how far the sense of touch may be made to convey to the sightless an idea of the beautiful. For as a deaf musician may enjoy

music despite his deafness, so may a blind man find pleasure in beauty of form notwithstanding his blindness. In the one case the pleasure comes from the rhythm, or rather from sonorous vibrations in the air, produced by the playing ; in the other, from the symmetry and regularity of the object handled.

"When music is going on I feel something here," said a deaf-mute who enjoyed operas, putting his hand on his stomach. The blind, even those born blind, as Professor Soret has ascertained by inquiries among the inmates of the Blind Asylum of Lausanne, have the same love of symmetry as the deaf. The girl embroiderers attach much impor-

tance to the perfect regularity of the designs which they are required to repeat in their work. The basket-makers insist on the willow withes they use being all straight and of the same length. Solutions of continuity in the things they handle are, to the blind, indications of ugliness. They like evenness of surface, regularity of shape ; a cracked pot, a rough table, or a broken chair causes them positive discomfort. But to create in the mind of a person born blind an artistic idea involves a measure of psychological development which it is very difficult to impart, and requires from both teacher and scholar great patience and long-sustained effort.

CHOREA.

THIS disease, commonly known as St. Vitus' dance is an affection of the nerves that may be only local, disturbing the muscular action of an eyebrow or a lip, or cover the greater part of the body, throwing it into the most extraordinary postures. There seems to be no positive loss of control over the muscles by the choreic person, but involuntary and explosive movements come in to interrupt their natural actions. At the beginning these may be but a slight twitching of the muscles of the face and limbs on one side ; but as the disease progresses nearly all the muscles of the body may become affected ; with results of constant restlessness, indistinct articulation, twitching of the muscles, increased by slight movement, and sometimes the contractions so strong as to throw the patient upon the floor.

After six or seven weeks the symptoms usually subside ; if they continue the disease may acquire the chronic type and annoy the person for years, if not during life.

The affection is peculiar to childhood, very few cases occurring after the sixteenth or seventeenth year in girls, and the fifteenth in boys, the former being

more subject to it. It is found, too, more frequently in the homes of well-to-do people and in the cities than among the poor or working classes. So that easy, luxurious habits and mental tension have a relation to its development.

Causes.—The causes of chorea are not well understood, neither is it known precisely what nervous centre is out of function when it appears, but it is probable, however, that it is largely due to defective nutrition of the brain and spinal cord. We have always found the disease associated with impaired digestion and a sluggish action of the bowels. People who are addicted to the use of tobacco and alcoholic liquors and whose habits otherwise are not consistent with hygienic principles, who are troubled with rheumatic complaints, sleeplessness, nervousness, chronic disorders of the stomach and intestines are likely to have choreic children. Some families are never without a case of it.

Sometimes it may assume an epidemic type, and so appears to be contagious or catching. Where a large number of children are together, as in a school or institution, the occurrence of a case may provoke a general outbreak of the

malady, through the emotional excitement it produces in susceptible childhood. The "dancing manias" of history were epidemics of chorea. Burton, in his "Anatomy of Melancholy," says, "that it is called 'St. Vitus' Dance,' for that the parties so troubled would want to go to St. Vitus for help; and, after they had danced there awhile, they were certainly freed. 'Tis strange to hear how long they will dance, and in what manner, over stools, forms, tables; one in red clothes they can not abide. Music above all things they love; and, therefore, magistrates in Germany will hire musicians to play to them, and some lusty, sturdy companions to dance with them. This disease hath been very common in Germany, as appears by those relations of Schenckius, and Paracelsus who, in his book of madness, brags how many several persons he hath cured of it. Felix Plater reports of a woman in Basle whom he saw, that danced a whole month together."

The modern public school system as it exists in most of our large cities has not a little to do with the development of chorea. Delicate, sensitive girls are found in all of them whose nervous systems are kept on the stretch for months in their anxiety to keep up their standing in the classes. An observer says that school troubles produce more cases than all other causes; "and the leading feature in this school category is a teacher who, for some reason, is particularly disagreeable to a sensitive or weakly pupil. The latter is in hourly dread lest the teacher will be cross and scold—he forgets how to spell, calls words wrong in his reading lesson, blunders to and from his seat instead of walking quietly and in order, drops his books, slate, or rattling pencil, and just when he thinks he has done everything to please his teacher (because he really tried to) he is called up before the whole school as a sample of the worst boy in his room, or sent home with a note. Only a few weeks of such daily tiffs

with his teacher will provoke a beautiful specimen of very severe chorea."

The Treatment may be summed up in few words. The most important measures are such as will improve the patient's general health. Let all apparent or suspected causes be removed so far as possible at once. Attend to the stomach and bowels, remove decayed or decaying teeth, give good, easily digested food, see that the clothing is abundant, easy fitting and water-proof. The patient should be given little or no flesh meat, but abundance of oatmeal, cracked wheat, whole wheat bread, and other like preparations. Exercise in the open air should be taken daily. The bowels should be moved daily by enemas, if they do not move spontaneously. Daily massage and sponging of the whole body in tepid water is also important as a mode of treatment. In addition, applications of ice or of hot and cold water to the spine should be made daily, from ten to twenty minutes at a time. These are frequently followed by almost immediate relief, which is at first temporary, and then becomes more permanent.

The child should be kept away from books and from any associates who might annoy him, and efforts made to render him cheerful and good natured. Of course, he should have an abundance of sleep in a bed by himself, during the day as well as at night.

The application of electricity is advised in cases of long standing, the positive pole of the battery being applied in the neighborhood of the superior cervical ganglion just below the ear; the negative pole is applied to the back of the neck. Only a weak current, a few cells of the galvanic current is applied, and only for a few minutes at a time. This method of electrical application is usually termed galvanization of the sympathetic.

In some recent cases that resisted other treatment mesmeric or hypnotic methods have been tried with very favorable results, the agitated nerves yielding to the influence of the mesmerist

and relief through the needed calm and sleep coming to the morbid nerves. Dr. Charcot, of Paris, reports encouragingly of this certainly most innocent treat-

ment, and from our own observations we are prepared to advise its trial.

H. S. D.

THE USE OF EARTH-CLOSETS.

THE importance of a proper disposal of house sewage should never be lost sight of, and no better method for universal use than the earth-closet has been introduced. It is again referred to here. A writer in the *Sanitary News* pointedly says:

To those persons who live in smaller cities, in villages, and in country districts, where the advantages of a sewerage system are not accessible, and in large cities where sewers are not extended to outlying districts, there is no such easy and economical method of disposing of excreta as by using earth-closets.

The primitive and barbaric privy pits are universally condemned, and almost as universally used. Earth-closets can take their place in a majority of instances without disturbing the habits of the family, and with great benefit to their health. The old privy can, by a little home carpentering, be fitted into a good earth-closet. The pit should be cleaned as thoroughly as possible and refilled with clean earth. The lower portion of the back of the old structure may be fixed as a door to raise up, to permit the removal and placing of the soil containers, which should be either galvanized iron pails or strong wooden boxes. The earth may be kept in a box or barrel in the structure itself.

The trouble with remodeling the outbuilding for an earth-closet is that it makes no change in the publicity of access, or the disagreeableness of reaching it in stormy weather. As an earth-closet, properly constructed and managed with a due regard for decency and cleanliness, need not be an offense to sight or smell, it can be so built as to

place it in some side room or shed attached to the dwelling and under the same roof. In this case a portable, easily managed closet is necessary.

The value of dry earth as an absorbent, deodorizer and disinfectant is not properly recognized. It is said by some to be more powerful in these capacities than any other agent known. If two parts of dry earth are put with one of excrement and kept in a dry place the two assimilate, the excreta becoming indistinguishable from the soil after a time, and it may be used over and over again, though it is generally better to bury each pailful in a different place each time over a portion of the land adjoining the residence. The earth must not be sand or gravel, but soil of a clayey nature, thoroughly pulverized. Powdered charcoal, coal ashes and street dust are equally effective.

Earth-closets offer many advantages, chief of which is that when they are properly cared for the excreta of one family is rendered perfectly harmless and disposed of on the premises, not being liable to soak into a neighbor's well. There is no offensive odor or contamination of the soil. They may be placed under the same roof as the living rooms, and thus be easily accessible to woman, children and invalids.

There are many failures of earth-closets to give satisfaction, but the failure is due to an inability on the part of the owner to understand their capacities. They must not be made the receptacle of house or chamber slops, as the ability of the dry earth to absorb moisture is necessarily limited, and any excess of its capacity creates a nuisance.

THE PRESS AND PUBLIC HEALTH.

A WRITER in the *New England Farmer* urges it upon the press of the country as a duty to assist in instructing the people on sanitary matters. He says :

Not long since a medical gentleman received a letter from a lady who lived in the country several miles from any physician, asking him to give her a few simple and general directions for the treatment of such cases as would not require a physician's skill, and also to serve in cases of emergency.

Among the various methods which have been devised to circulate this needed instruction, such as lectures, books, magazine articles, etc., there is none which supplies the want so fully as a series of health articles in the columns of a widely circulated newspaper. Comparatively few people have the opportunity of attending a public course of lectures on such subjects, and even then but a small part of the speaker's remarks can be remembered and turned to practical use when needed. There are, to be sure, many good books on "domestic medicine," but, with a few exceptions, in order to understand these works, it is necessary for the reader to have a considerable knowledge of the structure of the human body, the use of drugs, together with the first principles of the practice of medicine.

What is needed, as suggested in the request above referred to, is a few "helps," or "guides," which may be offered in a social informal talk on various health subjects, divested of all technicalities, and clothed in plain, simple language which all can understand. Such "talks," if properly prepared, and treating of the everyday things of life, coming before the readers of a paper as it makes its weekly visit to the homes of the subscribers, can not fail of creating an interest in these things, and also of doing much good. It has often been

observed that the family scrap-book contains a larger proportion of articles on these subjects than of any other class, while those which contain instructions how to render assistance in cases of accident or sudden illness are found "sandwiched" between the leaves of the cook-book for ready reference. By diffusing such information the press has added yet another to its already grand treasury of knowledge, namely, that of a sanitary educator.

We use the word sanitary in this connection in its broadest and most catholic sense. By this term we mean anything which can aid in the preservation of health, the prolongation of life, immunity from disease and the relief of suffering. In order to obtain these it is essential that we possess a general knowledge of the construction of the brain, heart, lungs, stomach, and other important organs, and understand the work for which in their natural condition they can accomplish. Yet it is true, though by no means a creditable fact, that the majority of people know far more about almost everything else than they do about themselves.

Proper attention to the use of the eyes and ears, and to the care of the lungs and feet, would save much discomfort, and often hours of suffering. It is by a knowledge of our own physical wants and necessities that we come to appreciate the value of good, wholesome food, the proper amount and kind of clothing, the influence which different kinds of labor have upon health, the necessary amount of rest and sleep which we require, and the best means of obtaining it. It regulates the hygiene of our schools, sets a boundary to the hours of study, and decrees that the physical development of our youth can not with safety be sacrificed in order to reach the higher mental acquirements. It aids us in the selection of a site for our homes,

and with the voice of authority warns the owner not to leave the provision of plumbing and drainage to an ignorant plumber or mason.

Like Diogenes sanitary science, with lamp in hand, enters our modern built houses and goes from garret to cellar looking for honest work of carpenter, plumber or mason. Unfortunately, it finds that too many are built upon piles in new-made soil, the cellars filled with leaky pipes, while in those houses of long standing, large traps clogged with accumulations of putrefying kitchen waste, soapy compounds, fecal matter, etc., are still the rule rather than the exception. The same applies also to the provision made for ventilation and heating, which seems to have been considered as a secondary matter. By its teachings also as a "sister of charity" she enters the sick room where ignorance and superstition have so long ruled, and at times held fatal sway, and with the knowledge of what sunlight, pure air and proper nourishment will do, she interferes in behalf of the helpless and patient sufferer.

But it is in the *prevention* of disease that we enter a larger field of usefulness and where sanitary science is yet to accomplish its greatest achievements. To prevent disease by a right observance of the laws of health is better than to cure it afterward by the use of medicine.

The main conditions of health are exercise, plenty of sunshine, pure air, wholesome food, good water, cleanliness, and regular habits. The problem how best to obtain and perpetuate these conditions in our own persons, our homes, schools, work-shops, and in the streets and by-ways of city and town, is now, more than ever before, engaging the attention of the intelligent public mind.

The grand opportunity thus afforded to the secular and religious press, in moulding the destiny and shaping the health of the present and future genera-

tions, might well excite envy, were it not that the subject is so closely allied to the higher interests of the soul. We can not help feeling that the members of the medical profession have been recreant to a sacred trust in not availing themselves of this avenue of approach to the lives and homes of the common people, and teaching them the value and blessings of health.

It is an old and trite saying that "public health is public wealth." This is true, whether we consider man as an individual, or associate him collectively in the mass of humanity. Suppose a man of large means, and possessed of fine business capacity, suddenly finds himself deprived of health, how long will it take to convince him that his best capital is embarrassed and his most brilliant efforts crippled? It has been proved over and over again that there is nothing so costly to the individual or a community as disease. One of the most striking illustrations of this truth, and which is still fresh in our minds, is the devastation by cholera on the continent of Europe. One of the most ably conducted journals in this country, commenting upon it, says: "Among other sad results of the visit of the cholera in Italy and Spain are the financial losses which it made necessary. It is thought that the first country has lost \$8,000,000 in revenue, while in the latter the customs have fallen off more than half that sum. When will the nations find out that it *pays* to be clean?"

The beautiful ancient city of Troy could withstand the assaults of the strongest Grecian army that was ever marshaled in the fields of Marathon, but it went down before Greek strategy. History tells us that the wooden horse destroyed the city. The wheel of time goes round, and we find even in this enlightened age, that a similar invasion is being made into our home. The result is no less certain than the fate which befell the inhabitants of Troy; the enemy is bound on the same errand of destruc-

tion and death. It is plain enough that this applies with equal force to those living in the town or city. The poisonous gases from the sewer, as they find their way through an ingenious network of piping, and come forth from the plated faucet of the marble basin in the elegant furnished residence of the rich man in the city, are no more fatal to the inhabitants of his household than are the emanations from a quantity of decaying vegetables in the cellar of the less pretentious house of the farmer in the country. The germs of typhoid fever contained in the quart of milk which Bridget took in at the basement door, will produce the same result as though they were inhaled from the miasma of the neighboring swamp.

It may be convenient to be able to

step from the door of the house to the well, the pig-sty or barn, but their close proximity to each other is not conducive to the health of a farmer's family. Analogous to this, the squalid condition of the alleys and side streets of our crowded cities, into which is thrown the garbage from the line of tenement blocks, will determine very decidedly the condition of the health of those who live in these wretched homes of the poor. It is by the co-operation of the press and the medical profession, in enlightening the public on the best and simplest means of preserving health, that a reform can be brought about in this direction. This is the great mission which now lies immediately before us, and which is to constitute the great work of the next and succeeding generations.

THE MEDICINE OF THE FUTURE.

THE late Dr. Samuel D. Gross, called the father of American surgery, used the following words in an address delivered at the dedication of the McDowell monument:

"Young men of America, listen to the voice of one who has grown old in his profession, and who will probably never address you again, as he utters a parting word of advice.

"The great question of the day is not this operation or that, not ovariotomy, or lithotomy, or a hipjoint amputation, which have reflected so much glory upon American medicine, but preventive medicine, the hygiene of our persons, our dwellings, our streets; in a word, our surroundings, whatever or wherever they may be, whether in city, town, hamlet, or country, and the establishment of efficient town and state boards of health, through whose agency we shall be more able to prevent the origin and fatal effects of what are known as the zymotic or preventable diseases which carry so much woe and sorrow into our families, and often sweep like

hurricanes over the earth, destroying millions of human lives in an incredibly short time.

"The day has arrived when the people must be roused to a deeper and more earnest sense of the people's welfare, and suitable measures adopted for the protection as well as for the better development of their physical, moral, and intellectual powers. This is the great problem of the day, the question which you, as the representatives of the rising generation of physicians, should urge, in season and out of season, upon the attention of your fellow citizens; the question which, above and beyond all others, should engage your most serious thoughts, and elicit your most earnest co-operation."

TEMPERANCE vs. TEMPERANCE.—Opposition to the Prohibition Movement in Ohio is said to have appeared in an unexpected quarter. A plan is being formulated by Francis Murphy and some of his most earnest and prominent supporters, to organize a State Temperance

Association. "The movement is in direct opposition to political prohibition, and the object of its organization is to offset the results accomplished by the third party." Moral suasion, as opposed to legal prohibition, will be the foundation of the movement. The organization is expected to have become one of the

strongest reformatory and moral societies in the State. Whether that be so or not, the liquor dealers will welcome the news that some one has been found within the temperance party, willing to lead a division in the Prohibition ranks, and for a time at least render them less formidable.

FLIES AND POOR VENTILATION.

WHAT pests they are, to be sure, yet, says Dr. C. E. Page, in the *Boston Herald*, the remedy is a very simple one. Flies are scavengers, and only enter. At least take up their abode in dwellings from which the sunlight and air are wholly or largely barred out. Even screens are objectionable, for it is impossible for air to enter as freely as through a wide-open window; besides, the creatures will get in by hook or crook, and when they have endured the stuffy indoor air as long as they can with due regard for their health and sigh for the pure atmosphere without, they are kept in by the screens, to which they cling, and do their best to obtain fresh air by breathing with their noses through the meshes, while the human inmates, starving and poisoning, growing weak and predisposed to sickness, are content with the devitalized air as their only respiratory food, like drinking from a stagnant pool whose surface is covered with green slime.

The truth is that sunlight and fresh air, if allowed the freest entrance to any home, will shortly leave nothing for the flies to do, and these little friends will simply make occasional excursions, singly or in pairs, to inspect the premises, not resting even to disfigure the paint, while the main body of the army will make their fight against diphtheritic virus in the homes of the million, the rich, middle class, and poor, no matter how "nice" the housekeepers are, whose indwellers restrict themselves to

quarter rations of oxygen, and prefer darkness rather than light.

Sufferers from headache, sleepiness, lassitude, or other of the "ordinary slight ailments" (that, however, so often develop into serious and even fatal sicknesses) may be certain that their troubles arise largely, if not chiefly, from the wrong conditions indicated in the foregoing.

The writer happens to know of a few inhabited dwellings where visitors remark upon the almost entire absence of flies, and appear perplexed to account for it, seeing no means for their exclusion. In these homes the ever wide-open windows are never blinded, the shades are run up out of sight, and never a screen detains the fly police when they have concluded their round of inspection.

Dr. Page says that his housekeeper declares that she "almost never has to touch the paint, and the mirrors and windows require very little cleaning from 'fly specks;'" and so a great part of the hardest and most vexing work of the housekeeper is avoided.

The secret of the law of living so that long life will result consists in the perfection of structure and harmony of function applied to every organ in the body. This law, we believe, is not a mere opinion, theory, or hypothesis, but a fundamental principle in physical organization, and is applicable, not only to individuals and families, but to people of all races and nations.

VALUE OF PHRENOLOGY.*

STUDENTS are we all, and it depends upon us to elect *what* we shall study—whether to benefit or injury, whether to advantage or disadvantage. If for benefit and advantage it will be requisite that we make ourselves acquainted with the material on which and the tools with which we shall endeavor to achieve a desired result. In other words we need a knowledge of human nature and especially of ourselves.

If (as is said) it be true that obedience is the first and most important lesson to be learned by the would-be commander how much more is it needful that one understands one's self if he would know how to influence others. There is no other so good and effectual way to learn our own excesses and deficiencies and how to regulate them as through and by the aid of Phrenology. It opens the doors of the mind, and by its light he who runs may read. Therefore, it is well for you to become its students whether or not your aim be to extend its benefits beyond self-improvement.

You have not come to join this class in Phrenology without serious thoughts. Your teachers here realize this fact and will endeavor to so instruct you that when this session closes you will have a feeling of thankfulness for having improved so great a privilege and learned so much about yourselves and your surroundings as well as of your relations to mankind.

We are all thankful to be able to give you such good privileges, and yet we would that we had a hall of our own in which we could accommodate our classes, but since we have not we do the next best thing we can, and, as in the past, labor and wait. Some person of wealth realizing the great benefit he has received from Phrenology may yet bestow upon this Institution the means to ob-

tain for it a permanent home for itself and its belongings. All our means are required and used for the dissemination of a knowledge of Phrenology. We have sown it broadcast and continue to do so, and would be glad to allow others to do a little for the science that has done much for them.

Mr. Wells loved Phrenology and strongly desired its perpetuation, and in casting about for the best method by which his desire might be attained, and conferring with others, the establishing of an institution where it might be taught and learned, seemed the most feasible of any that presented itself, and this chartered institution was the result. *Here* apostles to the science may be prepared to receive the falling mantles of its old-time defenders.

There are literary colleges where one can study the earth and everything under the sun *except* the true science of mind. On this topic they all seem to fear to take the initiatory step. Why? Various reasons may be surmised. Is it because it is so easy to understand that the students may soon learn to know as much about it as their teachers? whereas the method of teaching *metaphysical* mental science is beyond the comprehension of either students or professing teachers. The organ of Human Nature when large makes it easy for the student of Phrenology to comprehend true mental science. Once in a while we hear of a literary institution willing to admit a Professor of Phrenology for a time, but it is almost *sub rosa*, and but few, comparatively, even learn that there is a department of the kind in any college, and, therefore, the necessity for this Institute. Are you interested in its perpetuation and will you exert yourself for such a result? We have faith to believe it is God's work and that it will, therefore, be taken care of by those who work under his banner.

We will do our best to teach you thor-

* Report of the address of Mrs. C. F. Wells at the opening of the American Institute of Phrenology.

oughly, for we wish you to be an honor to the *American Institute of Phrenology*. Make a note of any query or suggestion that may occur to you during the lectures at any time, and hand it in. Dr. Drayton has spent much effort in delving and digging, in sapping and mining, and been a close student of the mental philosophies of former times and also of the physiology of the mind, and is prepared to give you in a few lectures what would cost you much labor to obtain by any other process.

Professor Sizer will be your chief teacher in the philosophy of Phrenology and the art of its practical application. In its practical application lies its greatest benefits, though I would not undervalue the good results of its philosophy.

Listen to him as if each successive lecture were to be his last. From experience we learn that there comes a last time, yet we trust that *his* last lecture will not come for many a day.

Dr. Sizer will teach you something of the anatomy and physiology of both body and brain. We wish you to be very attentive to this portion of the lectures, for here is where objectors in scientific schools think to "annihilate" Phrenology, and you should be able to show them their errors, and we hope your ambition may stimulate you to obtain all the knowledge you can so that anti-phrenologists may not find you napping, but through your gentle yet positive influence, backed by facts which they can not gainsay you may win them over to be allies, *not* objectors.

Other lecturers will lecture on correlative subjects in their order. We would have you avail yourselves of an opportunity to cultivate your voices so that your lectures may be attractive instead of repulsive in that respect.

You know that people will crowd a hall to listen to a *voice*, even though that be the only attraction. So train the voice that your words of wisdom may be given with a harmonious, attractive, musical intonation. There is still much

to be done, and there can not be too many advocates, disseminators, teachers, defenders of Phrenology. Dr. Thwing will train you in the use of the voice and we wish you to avail yourselves of the opportunity to improve under his valuable teachings. He has long been a public speaker and knows very well what you need and how to make his knowledge useful to the class.

Loving Phrenology as we do we are thankful to see new adherents, for we know it will lead to good and not evil, if followed with a good purpose. It has begun to wield a great influence in the family, the school, the pulpit, at the bar and through the press. Even the religious papers and magazines, some of them, teach Phrenology and make use of phrenological terms, which are more terse and expressive than can be found elsewhere. Business men use its knowledge in their dealings with each other. A lady phonographer once in our employ, while taking dictations, learned so much of its uses and benefits that on going to another business she was requested to select proper incumbents for various places, and was singularly successful. See the ignorance exhibited by parents in influencing or compelling children to undertake a calling for which nature has not designed them, and then witness their failure and, perhaps, a consequent degradation, or, at least, discouragement and loss of time and effort. By sad experience they learn a very simple lesson which ought to have been known before. Can one fit a square peg in a round hole?

Phrenology is destined to be of great benefit when once made familiar and should be early taught to children who soon grow to be men and women, actors in life's various phases. If you wish to help on the best cause in this world here is your field and now is your time. Thank our heavenly Father if you may be permitted to join the ranks and help forward the great work. It is an honor worthy your appreciation.

NOTES IN SCIENCE AND INDUSTRY.

The Invention of Electric Telegraphy Old.—We unite in hailing the electric telegraph as the wonder of the age; but the idea is as old as 1637, at least. Scherwenter, in his "Delassements Physico-Mathematiques," published in that year, explains how two individuals can communicate with each other by means of the magnetic needle. In 1746 Le Monnier, by a series of experiments in the Royal Gardens in Paris, showed how electricity could be transmitted through iron wire 950 fathoms in length; and in 1753 there was a remarkable description of the electric telegraph in the *Scots Magazine*, in an article entitled "An Expeditious Method of Conveying Intelligence," by Charles Marshall. In 1774 we find an electric telegraph in full working order, and capable of transmitting messages. This was the invention of George Louis Lesage, Professor of Mathematics at Geneva, who announced it in 1760, so fully assured was he of successfully carrying out his idea. His instrument was composed of twenty-four metallic wires, separate from each other, and inclosed in a non-conducting substance. Each wire ended in a stalk, mounted with a little ball of elder wood, suspended by a silk thread. When a stream of electricity, no matter how slight, was sent through the wire, the elder-ball at the end was repelled, each movement designating some letter of the alphabet. A few years later, in Arthur Young's "Travels in France," we read of a similar machine, the invention of M. Lomond, of Paris.

A Boy Who Can See in the Dark.

—Mrs. Quinn returned from a visit to England and Ireland recently, and is now living at 471 North Wells street. She took her little boy across the Atlantic to have his eyes examined by celebrated oculists, who had never beheld such a phenomenon before, although surgical literature recited solitary instances. Lately Mrs. Quinn visited the Eye and Ear Infirmary, a state institution, on Peoria street, and showed the child to Dr. Charles F. Sinclair, who was so much struck with the case that he at once called in four other eye specialists and interrogated Mrs. Quinn at some length. They agreed that the case was a most unusual one, no other, in fact, than a congenital absence of the major portion of the iris in both

eyes. The iris is the grayish circle in the center of which is the pupil of the eye. In the case in question a portion only of the iris is visible upon the outer side of each pupil, presenting a remarkable appearance and an interesting study for specialists and the profession at large. The medicos asked Mrs. Quinn to accompany them into a darkened room where tests and examinations are made and arrived there it was seen at once that the little lad's eyes were similar in nearly all particulars to those of the cat. There was an immediate expansion, and the eyes blazed away in the dark like balls of fire. Mrs. Quinn said that eminent practitioners in England had told her that nothing could be done, and in this the gentlemen of the Illinois Eye and Ear Infirmary concurred. The child sees better in subdued light or darkness, as too much darkness, like too much light, blinds him, and he distinguishes objects at a distance much more readily than when placed a few feet from his face. It is a genuine case of photophobia, and many eye specialists of Chicago have requested permission to call upon Mrs. Quinn with a view of examining the pretty boy, who has no other peculiarities.—*Chicago Journal*.

How to Cool a Cellar.—A great mistake is sometimes made in ventilating cellars and milk houses. The object of ventilation is to keep the cellars cool and dry, but this object often fails of being accomplished by a common mistake, and instead the cellar is made both warm and damp. A cool place should never be ventilated, unless the air admitted is cooler than the air within, or is at least as cool as that, or a very little warmer. The warmer the air, the more moisture it holds in suspension. Necessarily the cooler the air the more this moisture is condensed and precipitated. When a cool cellar is aired on a warm day the entering air being in motion appears cool, but as it fills the cellar the cooler air with which it becomes mixed chills it, the moisture is condensed, and dew is deposited on the cold walls, and may often be seen running down them in streams. Then the cellar is damp, and soon becomes mouldy. To avoid this, the windows should only be opened at night, and late—the last thing before retiring. There is no need to

fear that the night air is unhealthful—it is as pure as the air of midday, and is really drier. The cool air enters the apartment during the night, and circulates through it. The windows should be closed before sunrise in the morning and kept closed and shaded through the day. If the air of the cellar is damp it may be thoroughly dried by placing in it a peck of fresh lime in an open box.

A Novel Industry.—Few persons on visiting a museum consider that such objects as skeletons require a certain fitting for exhibition. Yet the preparation of skeletons for the market constitutes a distinct industry, to which a large manufactory in the suburbs of Paris is devoted. Corpses are supplied from dissecting rooms and hospitals. On its delivery the raw material is boiled for days in a cauldron, and the grease which rises to the surface is skimmed off and sold. The bones are carefully cleaned and bleached in the sun, and finally assorted and converted into articulated skeletons. The preparation of frogs, lizards and various reptiles occupies a separate department.

Save the Liquids.—While travelling in England and Continental Europe a few years ago, looking up and reporting the agricultural interests there, we were very much interested in the care taken of the liquid manure by British dairy farmers. This is accumulated in tanks built for the purpose, and it is drawn on the land at intervals as wanted. Grass land is greatly improved by giving the cows pastured on it an allowance of oil-cake and grain. The food which they claim is most convenient to give in the fields is linseed or cotton cake. Meal may also be given, boxes or troughs are placed at short distances from each other and thus the animals are readily fed. The cost of artificial food is largely repaid by the extra quantity and quality of the droppings, which should be frequently scattered.

In this country, especially in dairy sections, farmers are very remiss in allowing the liquid, so essential on most farms, as being rich in plant-forming constituents, to go to waste, besides creating a nuisance in many instances. It is but little trouble to save the most of it. By laying troughs under the floor of a tight floor where the water falls it may be conducted into some

convenient receptacle sufficiently large to hold all made during the winter; in this can be placed mulch, lime, ashes, plaster, chaff, or anything to absorb the moisture, and rot; and when wanted for use dilute with about seven times the amount of water and it will be worth just seven times as much as the entire amount of solid manure made. I care but little for what crop it is used. In the yard or shed where manure is stored until wanted the bottom should be so constructed as to save all the liquid either deposited by the cattle or added in the form of snow and rain; for when the bottom is porous the liquids are not only lost, but in their percolations through they carry off the best part of the solid manure.


J. F. E.

A Good Cow.—The following are condensed statements taken from a paper read by Prof. Arnold before the Wisconsin Dairymen's Association and printed in the *Farmers' Review*, subject "Outward Indications of a Good Cow." 1. The size of the mouth is in proportion to the size of the stomach; 2. The size of the stomach, "the girth around the body at that part," and the fulness around the mouth indicate the digestive power; 3. The condition of the digestive system can be judged by the condition of the coat and the brightness of the eye; 4. The power of the circulatory system can be judged by the heart girth; "The distance around the body at that part;" 5. The wide open nostrils indicate good breathing power; 6. The milking power of a cow may be determined by the amount that the digestive system exceeds the respiratory and circulative system; 7. Conclusion, a sluggish cow gives the most milk.


Statistics of Blindness.—The world's blind are computed to number about 1,000,000, or about one sightless person to every 1400 inhabitants. In Austria, one person in every 1785 is blind; in Sweden, one in every 1418; in France, one in every 1191; in Prussia, one in every 1111; in England, one in every 1037. The proportion is greatest in Egypt, where, in Cairo, there is one blind person to every twenty inhabitants; while in New Zealand it falls to one in every 3550 inhabitants. Germany has the greatest number of institutes for the blind, thirty-five; England has sixteen; France, thirteen; Austria-Hungary, ten; Italy, nine; Belgium, six; Australia, two;


while America, Asia and Africa together are said to possess only six.

Think of It!—The following diagram represents in round numbers sundry yearly expenditures by the people of the United States. It compares the cost of our vices with our expenditures for the necessities of life, and sharply defines the interest of the people at large, in the things that relate to the best interests of society.


Alcoholic Liquors, \$900,000,000.


Tobacco, \$690,000,000.

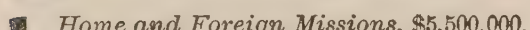

Wool, Cotton and Sugar, \$602,000,000.


Iron, Steel and Lumber, \$523,000,000


Bread, \$505,000,000.


Meat, \$303,000,000.


Public Education, \$92,000,000.


Home and Foreign Missions, \$5,500,000.

With this in view can we wonder at the crime, social disorder, domestic unhappiness, sickness and sorrow that abound among us?

Preservation of Bouquets.—The following is a description of the process by which a bouquet of flowers can be preserved fresh for a long time:

A vessel of water is required; the vessel should be large enough to allow the submersion in it of a plate or dish holding the bouquet to be preserved, and a bell-glass to cover the bouquet. The dish or plate should contain no moss or other material; the water should be limpid and quite pure. Place the plate at the bottom of the water, and on the plate, submerging it, place the bouquet, which is maintained in an upright position by a weighted base previously attached to it. This being done the bouquet is covered with a bell-glass, the rim of which ought to fit exactly to the flat part of the plate; the bell-glass should be entirely filled with water, and without the least air-bubble.

Then all are raised together, plate, bouquet, and bell-glass filled with water, and placed on a table, carefully wiping the exterior, but leaving on the plate, around the base of the bell-glass, a little provision of

water which prevents the entrance of air. The flowers in this condition will be preserved in all their freshness for several weeks, and their beauty is increased by a great number of bubbles of gas produced by the respiration of the leaves, and which attach themselves to the petals, appearing like pearls. The edge of the plate and the water that it contains should be concealed by a light bed of moss in which are set some other flowers. In the evening, by artificial light, a bouquet thus arranged produces a charming effect.—*Vick's Magazine*.

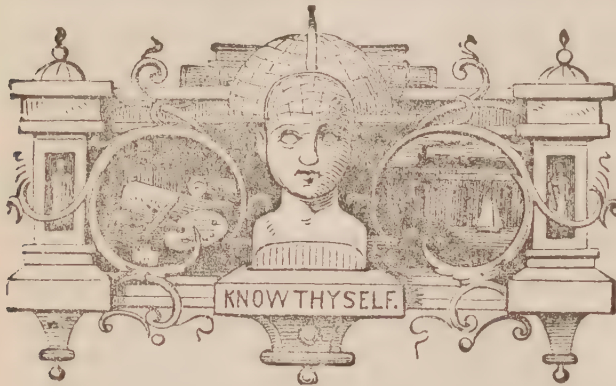
Vital Tenacity.—EDITOR OF PHRENOLOGICAL JOURNAL.—There is a curious fact I desire to place on record, not having heard of any similar case. While making a collection of entomological specimens last summer, I caught a number of horned toads and corked them in a bottle of alcohol to preserve them. In a few days I had occasion to look at them and was surprised to find them alive, though stupid or drunk. Three weeks afterward, they were still alive and would move their limbs slowly when disturbed. How long they lived I am unable to tell, for I did not look at them for several weeks later, at which time they appeared to be dead. The horny toad lives in very dry sandy places. It is found where water can not be obtained by digging, and twenty miles from water, on top of the ground. It travels slowly and does not seem to be fond of action, which induces the belief that it can live a great while without water. How such reptiles could live three weeks corked up in a bottle of 88° proof, alcohol, is what seems strange to me.

C. H. BLISS.

The Great Eastern an Advertising Machine.—The uses to which the Great Eastern has just been put of late are doubtless such as her designer and builder never dreamed of. She is engaged, as may be remembered, to fill out the remainder of her days as a coal hulk; and, meanwhile, she has been sent from Milford Haven, where she has lain for a dozen years to Liverpool, in order to have her engines lifted out. Accordingly, an enterprising clothing establishment of the latter town has hired her during her stay. A circus is to be put into one of her big cable tanks, which is seventy-five feet in diameter; a menagerie in one of her saloons; stalls for wares on her decks; while the trail of the

advertising poster will be all over the ship, and especially on her huge sides, divided and let out for the purpose. Certainly, the last days in the career of the unfortunate

monster, that once awakened a world's wonder, will be less garish as a humble but respectable coal cellar, than its impending employment as a floating bill board.



FOWLER & WELLS COMPANY, *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
NOVEMBER, 1886.

SUICIDE AND INSANITY.

It is usually said when a man has committed suicide that "he was insane," the impression being current that a person would not take his own life were he in his right mind. This impression seems to obtain in spite of the numerous instances that appear of suicides who were not thought to be mentally deranged or even "queer" by their friends — and whose method in killing themselves showed coolness and coherence in a high degree. A short time ago it was recorded in the newspapers that a certain gentleman came to a hotel in the City of New York, and engaged a room. Nothing in his appearance or conduct excited the least suspicion that his mind was in any manner disturbed. He went in and out like other boarders, was quiet and respectful. One morning soon after his arrival he was found dead in his room, having shot himself. The examination made afterward elicited very

clearly that the act had been carefully and deliberately meditated. Inquiry into his business affairs and social relations revealed nothing of a sort that furnished a reasonable motive for his self-destruction. His friends and the community where he lived were greatly astonished by it.

We can readily suppose a state of mind that would impel a person to suicide; we meet with people every day who are in distress through business embarrassments or domestic troubles, who carry the marks of trouble in their faces and depressed manner, and we can easily assume that unless relief comes in some form some of these people might yield to the nervous strain so far as to form a desperate resolve to end their sorrow by taking their lives. In such cases we should agree to the opinion that the mind had become disturbed to some extent, but should not conclude that the derangement was necessarily that of positive insanity. As a writer says: "There are states of mental agony in which the mind is in no danger of losing control of itself, and yet it is often in very great peril of being driven into a corner without seeing a way of escape, and of assuming that death is preferable to life. . . . When extremities of mental misery are reached the sane and sound consciousness is quite capable of forming a rational judgment that nothing in the future can be more terrible than the present horror."

We hear it said that a highly moral or religious nature, unless reason were de-

throned, could not yield to a deliberate intention to take one's own life any more than to kill another. It seems to us, however, that suicide may not only be possible with good intellectual culture, but also with deep religious sentiment, for the latter tends to impress the mind with a conviction of a life beyond the grave that is better than this, and one that is specially characterized by its consolations for the sorrowful and unfortunate. And reason may excuse the self-immolation on the ground of relieving one's friends of a burden, as well as one's self of pain and distress for which there is no prospect of abatement during this life.

The writer already quoted thinks that non-religious persons are very much more likely to commit suicide than the sincerely religious, that it is quite conceivable to them that death will be an improvement of their condition, even, though there be no existence after it.

In considering this important subject it should be remembered that there is a mental principle, that may be termed the vitative sense in all men that has much to do with their view of life. In some it is very strong, giving them a tenacious hold upon existence—a spirit that seems to defy disease, misfortune and trial. No matter what their moral disposition of these is they never think of dying except with great dread, and as something to be escaped by all possible means. In some this principle is weak, and it is they who show when sick or distressed little desire to live; they decline and die under an illness that would not send one of the other class to his bed. We can conceive that one with but a moderate endowment of this vitative sense, and

whose life has been clouded with disappointments and bitterness, would yield to suggestions of a bettered state in a life that is reached through the gateway of death, and in dying would be no more subject to the accusation of insanity than a man would be regarded insane whose disposition does not show a good degree of courage, or taste, or reverence or the tendency to save money.

OUR PENAL COLONY.

THE suggestion that was made in these columns some months ago with regard to the establishment of a penal colony or American Botany Bay has received more favorable notice than was expected. Its importance as a method for the moral improvement of our people has been especially appreciated, while some correspondents of an economical turn of mind accept our view of its effect in reducing the financial burdens that are imposed upon most of our larger communities, by the necessity of supporting large and constantly growing penal institutions.

We had expected that an objection would be made on the ground of the character of our nationality; that a penal settlement was something out of keeping with the spirit of our state and national organization, but as it has not been offered we are ready to believe that a measure having in view the promotion of the welfare of the criminal classes in a systematic manner, and relieved from the many embarrassments that now hinder attempts to reform and aid offenders, whether in prison or at liberty, would find little opposition from Americans.

We think that the subject should be more generally discussed, and should be

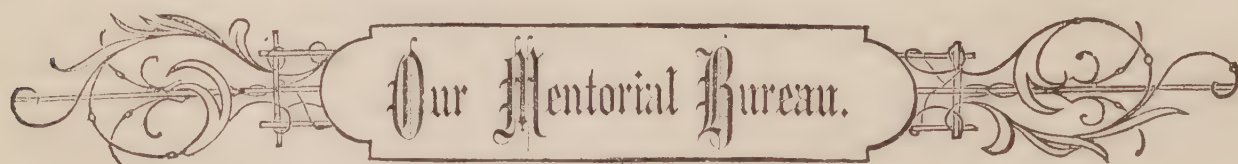
pleased to give space in our pages to practical views from those who have studied the condition of society in its relation to crime and vice.

CHARLESTON—WHY NOT?

THE terrible calamity at Charleston reminds us that although our country has enjoyed an immunity from destructive terrestrial convulsions for so many years, it is by no means altogether safe from them. If our people would have some regard to the probability of such an occurrence as a severe shock of earthquake, we think that it would be wholesome in its influence upon society. We have often thought of the effect of a violent ground vibration upon those preposterously tall buildings that "ornament" so many of our narrow streets, and which a false passion in architecture has designed, and an unwise municipal policy has permitted to be erected. What broad-cast and fearful destruction the fall of some of those ten-story apartment houses up-town and of those

eleven-story business blocks down-town would cause! How much harm such great structures are doing to health by shutting out sunshine and free air from neighboring streets and houses we shall leave to conjecture!

But of Charleston, who knows that her sad experience will not lead to a better condition? The great fires in Chicago and Boston proved to be ordeals of improvement; from the ashes have risen better and stronger cities. Why may not Charleston date from August 31 her rise into a condition of activity, progress and influence such as she never knew before? It seems to us that the interest her misfortune has awakened in the civilized world might be made conducive to the Southern city's lasting development. We are glad to know that her citizens generally show a mind superior to their disaster, and are push-forward in the effort to rebuild and restore. Our best wishes are for their entrance upon a new and true era of prosperity.



To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compos-

itors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym

or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

DREAMS.—I. H. W.—Your difficulty is confessed by many other correspondents. They have singular dreams that seem to them replete with portent, but which they can not interpret. Later something occurs that appears to solve the mystery and make the events of a dream valid as a warning. We can not evade the force of a series of correspondences; they appear to us related as effect to cause.

If a man dreams twenty times of getting into a nest of rattlesnakes, and having a contest with them, and shortly after the occurrence of each dream has a bitter quarrel, or serious trouble with some one, we are driven to conclude that he is either a very quarrelsome fellow and would get into trouble often with his neighbors any way, or he has acquired a mental habit of dreaming about rattlesnakes.

It must be understood that we can get into dream habits just as we contract habits of thinking in certain directions while awake. Organization has a great deal to do with dreaming. People with broad heads and active temperaments dream of scenes in which there is strong action. We know a lady with large Destructiveness, Firmness, Constructiveness, Order, and a very active temperament who dreams very frequently of house-cleaning, awaking in the midst of the work with a sense of much physical exhaustion. We know another who frequently dreams of going into cold water. As these dreams have been kept up for twenty or more years without anything happening we think that they signify simply a certain physiological condition that can be accounted for.

When a dream comes to one in an isolated way, and it has a peculiar character which may not be referred to previous mental impressions or physical states, and it occurs to a score of different persons, each ignorant of the others' experience, and an event later points so clearly to the dream that we can not with candor deny a con-

nection, then the portentous nature of the dream would appear to us beyond cavil.

MIND AND DISEASE.—A. M.—Many diseases are caused by mental influences. There is no doubt about this. And when a person is sick his feelings have much to do with improvement or decline. As an experienced physician has said it is useless to prescribe for a man who has no confidence in your treatment, and thinks that your medicine will do him no good. One who is cheerful and buoyant has ten chances for getting well, where he who is gloomy, fretful and blue has one. That "nearly all diseases" are the result of mental unbalance or weakness we do not believe. Otherwise all the insane and idiotic would be badly diseased physically; whereas the animal condition of a large proportion appears to be perfect. You will find in earlier numbers some discussion of this subject.

BEER FOR SLEEP. M. S.—We know that some physicians prescribe the drinking of beer to persons who are so nervously excitable that they can not sleep; but the practice does not agree with our views on the nature and effects of alcohol, lupulin and the drugs used in the manufacture of beer. If the physicians who advise such stuff were chemists we think that they would know the inconsistency of such professional conduct. Into the composition of much of the beer sold in our large cities, especially lager beer, stuff that is nothing short of villainous enters—for instance, soap, alum, aloes, *cannabis indica*, alcohol, etc.

PAIN OF FLATULENCE. — F. L. — Your "heart trouble" is nothing more, we think, than the pressure occasioned by gas in the stomach or intestines. Correct your eating so that the digestion will be good and little or no gas be found to distend the intestinal canal unduly, and your side-aches will probably disappear. A great many cases of heart affection are nothing more than symptoms of indigestion.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

Reform—School Reform.—The reformers of to-day fail (like those of the

past) to arrive at any definite mode of working. Theorists have presented their views, had them tried and found impracticable to the degree of discontinuance. But have they ended there? Alas, no. Repetitions and failures are moving in constant succession. I would invite the attention of modern moralist and reformatory directors, to a conspicuous flaw in reformatory machinery, *inharmony of action*. Let those who would elevate the morally dwarfed subjects, committed to the care of reformations, be men and women phrenologically fitted with minds of like type. Union of forces and concerted action only can achieve the desired success. A father may be wise and conscientious, and his teachings exactly of the right order to improve the natural faculties of his children, and that development be arrested by the frivolity of the mother, or *vice versa*. Inharmonious work amounts to naught. The canker will continue to thrive despite of inconsistent method. Men and women who are not, by natural inclination and culture, of a benevolent, conscientious and firm cast of mind, who are not willing to make a speciality of this work of reform, should be directed to callings more suitable to their respective "make ups."

S. E. D.

Aunt Ruth's Triumph.—"There! what did I tell you? See here," pointing to an article in the JOURNAL quoted from a medical work, "see what the doctors think of baking-powder, do you suppose its *their* 'whims,' as you called my opinion then?"

Ruth's daughter read the article and without retracting by word her former judgment in regard to her mother's views, although her mother sees that in reality she was becoming converted to them—she only replied: "That's not what the good old JOURNAL thinks of, its own self-interest; it is only zealous for the welfare of the community at large, and is not so dependent upon subscribers as to cater to anybody to keep them. Just what I admire it so for; and I believe it's more than half laziness that makes women rush for these dozen or more chemical mixtures for *quick* bread making, that, they may drop down to their painting, embroidery, crazy-quilt, and all the rest of the knick-knacks that make houses anything but places of rest. Why, nobody's allowed to rest, at least upon these things? After worming themselves through a room

littered with them, to a chair, they are to sit bolt-upright, tired as they may be. That tidy is not to be touched, and as to that footstool, only look at and admire it."

"So quick to make," said Miss Hines, when I told her my opinion of them. "Yes, haste, that is the only thing now in these lightning days. Can't wait over night for good, sweet bread to rise; pie-crust and all, whirled together, clapped into the oven, and presto! look out for the poor stomachs that get 'em. Thanks to the medical men—I'm *not* one, only the granddaughter of one, but enough of grandpa in me to detect the fraud."

Aunt Ruth turned to take out of the oven two beautiful wholesome loaves of bread, of which no one need fear to eat, and her daughter laughed and said, "Really, what a triumph, mother."

Now I share aunt Ruth's triumph, and I also triumph in the fact that such wise and kind words are from month to month coming to us, through the editorial column of the JOURNAL; and I could not be happy until I had thanked, in the name of all women who have been by circumstances thrown upon their own resources for a livelihood—the editor for that article entitled, "Let the women set type." Whether it is well for them or no, physically—and I have before read objections to their doing it, no one can read the closing words of that article without admiring the justice and kind feeling that must have prompted it. Yes, with the writer we deplore that *all* women have not quiet, beautiful homes, and "natural protectors," but as so many are deprived of these, let us thank God, who "helps those who help themselves," and *occasionally* raises up *just* men to advocate their cause.

I cut from a religious journal these words by Hugh Stowell Brown. "What will the world say? This question to most men and women is of mighty import, and being so militates strongly against all truthful words and actions. Are we prompted by conscience to protest against wrong, how does this question hold us silent? Coming to young men and women in their choice of a life vocation, how does it too often turn them aside from unselfish purposes, to self-seeking? Comes it to mothers in regard to the rearing and dressing of their children, ah, how does motherhood, the wise, healthful rearing of these, go down before the ter-

rible, what-will-the-world-think? Comes this question to Christ's ministers, as it far too often does, alas! and oh, how it brings them down from their lofty ideal of 'ambassador,' to miserable self-seekers, covetous of the applause of men, and the seductions of a large salary.

"What"—as Mr. Brown further asks, "is the world? Something that passes away, even the fashion thereof"—for which last let us be thankful, when we see so often the foolishness of such fashion—and let wise people at least, seek something that endures, that is ennobling, as their watchword, and not this—as I believe—question of the "prince of this world" what will the world say?"

COUSIN CONSTANCE.

Baking Powders.—Under the above heading in a late number of the PHRENOLOGICAL JOURNAL is a quotation from a number of the *Journal of the American Medical Association* in which are the following remarks:

"The continued use of even the purest baking powder will affect the health seriously. . . . The continued use of alkalies in any form injures the health. Look at the alkali country west of us where the alkali is found in the drinking water. The same dangers will arise from the persistent alkaline medication of our daily bread."

The above remarks, it seems to me, are somewhat misleading rather than instructive. One would infer from them that even the best baking powders contain an excess of alkali and render everything made with them alkaline and therefore unwholesome. But this is most certainly not true. When rightly made a baking powder contains sufficient acid to neutralize all of its alkali, thus rendering it practically inert.

In the refined cooking of to-day, baking powder or some quick-acting substitute therefore is absolutely necessary. I do not mean to be understood as saying that plenty of healthful food can not be prepared without it, but simply that the great mass of the people will have various things that can not be made without the use of some quick leavening preparation. It is therefore important that the preparation used be as unobjectionable as possible.

The best baking powders are made of pure bi-carbonate of soda and pure grape cream of tartar, with a little starch or flour

added to preserve the compound. They are the best materials for leavening purposes yet discovered. They do not change the nutrient elements of food like yeast does nor add any very objectionable material to it, the result of their action being carbonic acid gas, which raises or lightens the dough, and a little Rochelle salt, which in large doses is a very mild cathartic, but in the very small quantities that it exists in bread and cakes made with good baking powder its effects on those who eat the same must be almost absolutely nothing. And a good baking powder is preferable to mixing the materials one's self, because in ordinary practice it is almost impossible to proportion the materials properly. If the soda be in excess as generally happens, the food raised with the preparation will be alkaline and therefore unwholesome. Even when nothing wrong is observed in the smell, taste, or appearance of the food a chemical test would often reveal the presence of free alkali. This free alkali is objectionable, because eaten in the food it neutralizes, in proportion to its quantity, the acid of the gastric juice, and thus interferes with digestion. But good baking powders leave no free alkali in the dough, and therefore the alkali objection can not be urged against them.

There are, however, but few pure cream of tartar baking powders, most of the powders containing burnt alum, acid phosphate, or carbonate of ammonia as a substitute in whole or in part for the more expensive cream of tartar. All of those materials are very objectionable.

But no one should be deceived by cunningly worded chemists' certificates, making great claims for purity, but carefully omitting to state the composition of the powder in whose favor they were written. The word *pure* in this connection means nothing. The question is — pure *what*? Unless the certificates are by reliable chemists, and clearly state the composition of the powder, both the certificates and the powder should be regarded with suspicion.

F. E. ASPINWALL, M.D.

PERSONAL.

A GOOD MAN.—Two or three months ago an aged negro died in Providence, Georgia, whose character deserves an immortal record. He was a former slave of Mr. J. A.

Ward, and his father and he and his wife lived with the Ward family nearly fifty years. He was never heard to swear an oath, never accused of lying or theft, never had a dispute or quarrel with his wife, never had a whipping during slavery, nor was he ever known to take a drink of whiskey. Was always faithful and obedient, peaceable and reliable. He and his wife had sixteen children, and they lived to see one hundred and twenty descendants, who are living. Honor the good whatever their color.

THE REV. DR. ASA MAHAN lately died in England after a long career of ministerial and educational labors in the United States. For about fifteen years he was president of Oberlin Institute, and for fifteen more president of Adrian College. Dr. Mahan is well-known as a writer on religious and philosophical subjects. He earnestly supported the idea of manual labor in connection with academic training and was often found in the company of his students at Oberlin, as busily engaged as any of them, "especially when any 'dirty work' was to be done." He was eighty-seven years old.

MRS. AMELIA B. EDWARDS, somewhat known as a writer of romance, has been studying Egyptology, and made considerable progress. She has been prosecuting her researches among the ruins in the Nile, and is most zealous in her work. We have no doubt that this exercise of good mental powers will prove more creditable to Mrs. Edwards than scribbling cheap stories, and we wish that her example as a student of science would be followed by other story writers.

Queen Christina of Spain may be seen any day in the palace gardens at La Granja sitting under a tree with the baby heir to the crown,—who was born after the death of Alphonso—while the little princesses play on the grass. While the court is in the hills, the Queen enjoys taking long walks with her children in the surrounding country without any attendants. She devotes the afternoon to state business, and the evening to music.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

The little while of life, how short it is,
and yet so full of momentous issues! The

great while of eternity, how long it is and how big with the happiness or misery of earth's countless multitudes.

The living get credit for what they might be quite as much as for what they are. Posterity judges a man by the best rather than the average of his attainment.—*J. R. Lowell.*

Religion, without morality, will not be likely to impress a godless man with the importance of religion. Faith and works, morality and religion, must be joined in the disciple of Christ who would bear a testimony for his master that shall be heeded.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

"I'm down on you," as the feather said to the goose.

"A Nashville youth eighteen years old captured and married a rich maiden forty-six years old." That surely can't be called a boycott.

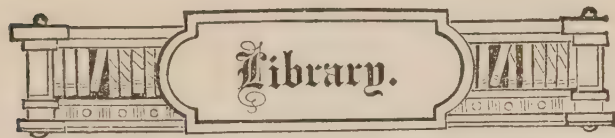
"I see the Socialists of Chicago are in a ferment," observed the judge. "You surely mistake," replied the major. "Mistake. Nothing of the kind. Didn't I see it in the paper?" "Can't help it if you did." Ferment means work, and that's something Socialists don't do."

One cause of the throat and lung trouble in this country is the fact that all of us sing so much and so sweetly. Neither the throat nor the lungs were intended to stand such strains.

This is about the time when the man who has been waiting all the Spring for something to "turn up" begins to look cheerful, and remark that he has hopes that things will take a boom in the fall.

In Maine a peddler sold a farmer's wife the familiar sign, "Ici on parle Français" (French spoken here), assuring her that it was the the original Latin text for "God bless our home," and the good woman proudly hung it in the parlor.

Father (starting down town): "Yes, Robert, my son, always keep in mind what your mother says, and always say please. Though a little word it indicates the gentleman. Here, wife, hold my overcoat and hat."



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

LITTLE STORIES FOR LITTLE PEOPLE, the Brooklet series. The National Temperance Society has just published a series of six illustrated story-books for children and youth, bound handsomely in cloth. They are edited by Miss L. Penney, author of "The National Temperance Orator." The following are the titles: "Pebbles from the Brook," "Little Stories for Little People," "Gems for Bands of Hope," "Little Drops of Water," "Fireside Stories," and "Our Pets." Twenty-five cents singly; \$1.50 for the series. 18mo, 72 pages each, very appropriate for presents. John N. Stearns, agent, New York. :

THE MAKING OF A MAN.—The Story of Rasmus. By Julia McNair Wright. Author of "The Best Fellow in the World," etc., 12mo, pp. 396, Cloth \$1.25.

The author of this book tries her hand at character building: she gives us an outline of a life that possesses qualities that are not unusual in the walks of rural life. A good-natured, self-sacrificing, honest, emphatic and withal aspiring fellow is Rasmus. He has a grim dislike to everything mean and degrading. Certain experiences in his early youth render him a sworn foe to drink and everything that relates to it and the author now and then weaves in an incident that amusingly or seriously teaches the evil of the liquor traffic. The book is well suited for the young, better than the average story books that bid for their patronage.

PUBLICATIONS RECEIVED.

OGILVIE'S POPULAR READING, No. 4, contains a variety of stories. Price, 30 cts.

PRELIMINARY LESSONS IN METAPHYSICS, or the science of Christian Healing, by Emil N. Kirchgessner, Boston, Mass. The author, in this pamphlet, attempts to describe the nature of what is commonly termed "faith healing." The plane of the discus-

sion is very elevated; often, we think, exceeding the sphere of true logical reasoning.

THE CENTURY, illustrated, for October, is rather rich and striking in its way. The sketch of the Gloucester Fisheries shows us how the hardy seamen of New England live and labor. Other illustrated articles are of Our American Explorers in Assos, the Biographers of Lincoln, A Norwegian poet's home, and Stonewall Jackson's Last Battle, Personal Reminiscences of Stonewall Jackson, and other articles relating to the late war, contribute to the variety of the contents.

THE ECLECTIC MAGAZINE, of Foreign Literature, gives us among other selections from foreign publications: On the Study of Science, Pasteur and Hydrophobia, Alexander Hamilton, Coral Fishing, Louis, the Second, of Bavaria, The Jubilee Year of Queen Victoria.

THE HOMILETIC REVIEW provides clergymen and the religious public with a variety of fresh sermonic literature and religious notes.

LIPPINCOTT'S MONTHLY contains behind its tasteful cover A Lear of Tompkins Square, How to Choose a Library, The Keeley Motor, Friction between Labor and Capital, George Welsh, etc.

HARPER'S for October, comes with Autumn in New England, which seems to relate chiefly to the sports of the season. The National Home for disabled Volunteer Soldiers has much to interest in its way. The Story of Tanis, an Egyptian Antiquity, United States Naval Artillery, with 21 illustrations, and a good variety in its editorial pages.

THE BROOKLYN MAGAZINE, for October, is of portly dimensions. The development of this publication has certainly been marked by rapidity; and is due largely to the addition of the sermonic department.

POPULAR SCIENCE MONTHLY, for October, contains views of specialists and others on the Distribution of Wealth, the Microbes of Animal Diseases, Are Black and White Colors? Philosophy of Diet, a sketch and portrait of General John Newton, and other topics.

NEW YORK MEDICAL COLLEGE AND HOSPITAL FOR WOMEN. Twenty-fourth Annual

Announcement, for the season of 1886-87. This Institution offers improved facilities to women who would study medicine. A three years' graded course is one of the chief features, that promise thoroughness of instruction.

NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL. Fifth Annual Announcement, with a report of the Dispensary and Hospital. The success of this venture argues well for the future of scientific medicine. Our physicians can not be too well-instructed in the practical work of their profession. The public demands more than the showing of a diploma nowadays for attendance upon the sick.

SEVEN HUNDRED ALBUM VERSES contains 128 pages of selections of prose and poetry, suitable for writing in autograph albums. Paper, price 15 cts. Cloth, 30 cts. J. S. Ogilvie & Co., New York.

FORTY-THIRD ANNUAL REPORT of the Managers of the State Lunatic Asylum at Utica. For the year 1885. Annexed to this report of the management of one of the largest American asylums is a clearly written article setting forth the nature of insanity, and some of its preventable causes, written, we presume, by Dr. Gray.

TEMPERANCE AND THE DOCTORS.—This is a document of a character to command respect, being an address delivered by B. W. Richardson, M.D., F. R. S., on the occasion of presenting a prize of one hundred guineas to a medical student for the best essay on the advantages of total abstinence. Price three cents. National Temperance Society, New York.

A FINE PORTRAIT of Mr. Geo. B. Roberts, the President of the Pennsylvania Railroad Company, has been received from Messrs. Root & Tinker, Publishers, New York.

TRANSACTIONS OF THE NINTH ANNUAL CONVENTION of the Wisconsin State Eclectic Medical Society, held at the city of La Crosse, May 26 and 27, 1886. The Secretary Dr. Noyes, renders this interesting summary of medical opinion, which indicates growth of liberal opinion in treatment of disease in Wisconsin.

TALMAGE ON RUM.—The National Temperance Society has just collected some recent sermons and addresses of T. De Witt Talmage, D.D., on the drink evil, in a well-printed pamphlet, with the title "Talmage

on Rum." Talmage's tongue and pen have always been outspoken and terribly in earnest against the twin evils of rum and tobacco. These sermons are in his most vigorous style, and should have an extended reading. Price in paper 25 cents. G. N. Stearns, New York.

CURRENT EXCHANGES RECEIVED.

The Inter-Ocean, weekly, Chicago.

The Folio, White, Smith & Co., Boston.

Le Progrès Medical, Bournville, editor. Paris.

Illustrated Catholic American, weekly, N. Y.

The Day Star, A. D. Jones, editor, N. Y.

The Youth's Companion, Perry Mason & Co. Boston.

The Cincinnati Medical News, and brief, etc., Cincinnati.

The Critic, J. L. & J. B. Gilder, editors, New York.

Building, weekly journal of architecture. New York.

Publishers' Weekly, a book-trade journal, New York.

Archives of Dentistry J. H. Chambers A Co., St. Louis, Mo.

Mind and Nature, a psycho-medical reporter, Chicago.

The Traveler's Guide, Knickerbocker Guide Co., New York.

The Rural New Yorker E. S. Carmen, Conductor, New York.

Book Chat, a good idea, monthly, Brentano Brothers, New York.

The Home Journal, Perry A. Philips, editor, etc., New York.

Our Little Men and Women, monthly, Lothrop & Co., Boston.

Vick's Monthly Magazine, Floral guide, illustrated, Rochester, N. Y.

The Dental Cosmos, devoted to the interest of dental science, Philadelphia.

The Banker's Magazine and Statistical Register, O. S. Bowles, editor, New York.

The Manufacturer and Builder, and Quarrying Journal, Rich & Black, New York.

The Phrenological Examiner, a neat circular, monthly. H. E. Foster, Louisville, Ky.

Harper's Bazar, depository of fashion, pleasure, and instruction, weekly, New York.

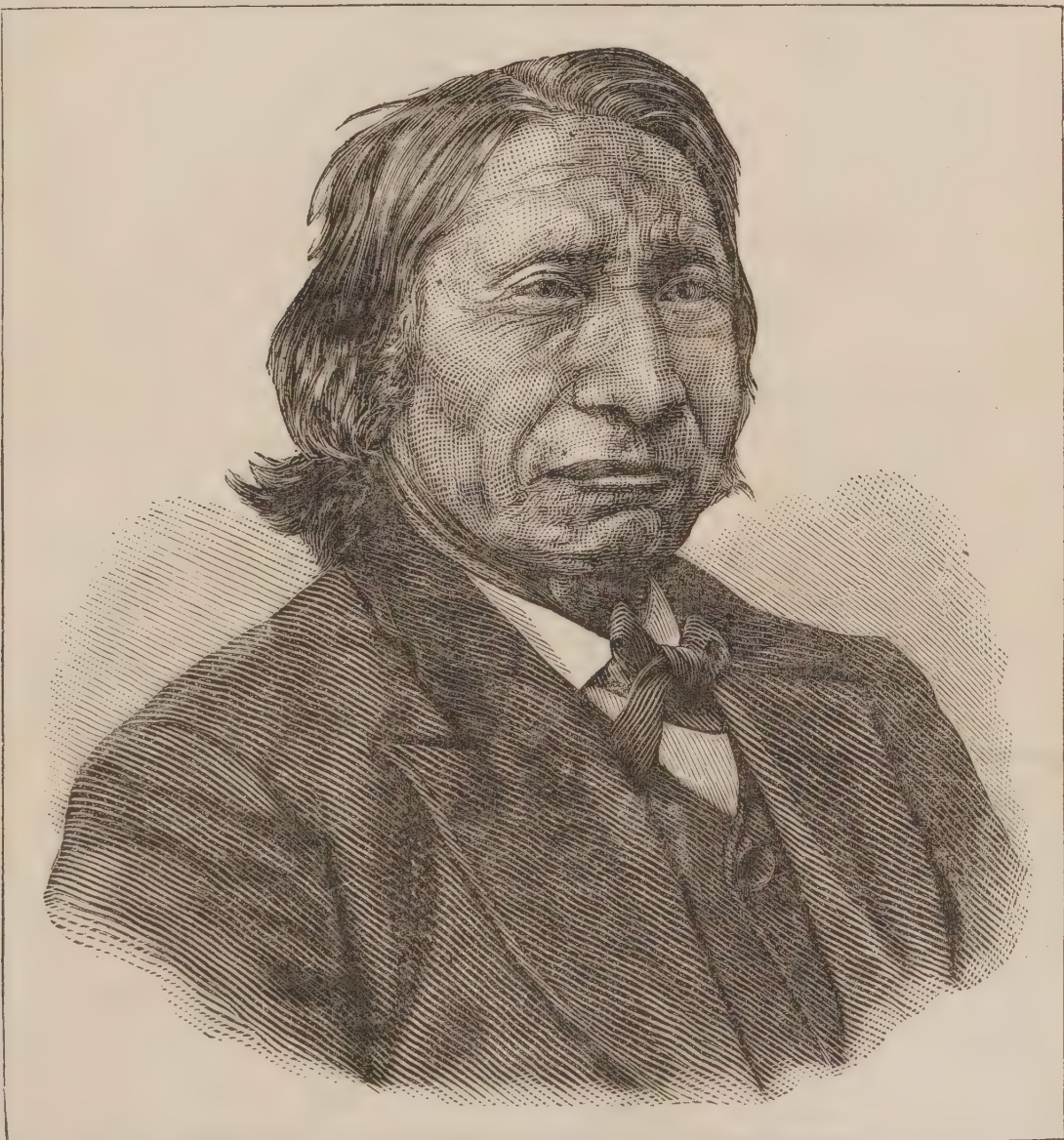
The American Medical Journal, a growing representative of its class. G. C. Pitzer, editor, St. Louis, Mo.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 83. 1886.

NUMBER 6.]

December, 1886.

[WHOLE No. 573.]



RED CLOUD, CHIEF OF THE DAKOTAS.

HERE is a strong face. The mouth is large, the lips firm set, the chin prominent. The nose is large and well-proportioned, and the forehead broad and high. It is the face of an orator and a leader ; it is a modest and kindly face, yet it is the face of one who knows his power and is willing to take responsibilities. It is the face of the best type of the Indian chieftain. The motive temperament is

better developed than the vital, yet there is a good balance, giving endurance, activity and power, physical and mental. The head is large, measuring twenty-three and a half inches around and fifteen from ear to ear over the top. The organs of the social group in the brain are marked in the chart as follows: Amativeness large, Philoprogenitiveness large, Adhesiveness very large, Inhabitiveness very large. He is therefore strong in his attachments to home, friends, wife and children. In the executive region we find Combativeness less developed than Destructiveness or Secretiveness; hence he is naturally pacific, yet possessing the qualities of the successful warrior. He would never go on the war-path through personal ambition or revenge, but as a patriotic duty he would fight to the death. Self-esteem is large and Approbativeness but moderate, giving dignity and independence of character, self-respect and self-confidence. Firmness is large as shown by the height of the head; hence the character is stable, and with large Conscientiousness and, a fair degree of Hope we have a man of high purpose, fixed convictions, unyielding devotion to what he believes to be right and duty. The perceptive organs, as in the aboriginal head generally, are all large, forming a beetling cliff above the eyes. Few things worth seeing escape the observation of this man, and his judgment of things is quick and broad. His Language is evidently active—see the eye expression—and as an orator he is logical, forcible, somewhat poetic, but not wordy or especially rhetorical. He is eloquent, but his eloquence does not depend on rhetorical arts; it is of the *multum-in-parvo* sort, simple yet strong, the kind of oratory which comes direct from a full heart, through an active and strong brain, and goes direct as a plumed arrow to the brains and hearts of auditors. The powers of logic and causation being both well and harmoniously developed, his speeches must of necessity be full of good

sense, expressed in the fewest words. Red Cloud is a man to win his way to positions of influence by legitimate means and who would bear his honors with dignity, and use his position to benefit his race. He would despise the arts of the demagogue, and scorn to prostitute public position to mere personal ends.

Mah-peah-Lutah (Red Cloud) is a full-blood Dakota or Sioux Indian. He was born near the present site of Fort Laramie about 1824. His father, whose name he bears, was head chief of the Ogalala tribe of the Dakota Confederacy or Nation, comprising seven tribes. Red Cloud being a younger son his older brother was heir apparent to the chieftainship; but on the death of the father the older brother, whose name we have been unable to get, declined the office in favor of Red Cloud, on the ground of his superior talents and general fitness for the position. The matter was laid before the Council and after discussion Red Cloud was accepted as the successor of his father. He was then about thirty years of age and had already distinguished himself by his speeches in council. The Dakotas were then a great nation owning a vast empire including what is now Dakota and Wyoming and a good portion of Minnesota, indeed *Minnesota* is a Dakota word meaning Land of Lakes.

The Sioux war of 1862 was confined to Minnesota. That involved only one tribe the Santee Sioux. The great Sioux War of '64-'67 between the tribes of Dakota and Wyoming served to bring Red Cloud to public notice in a pronounced way. At all Councils between the representatives of the United States and the Sioux Nation Red Cloud represented his tribe. Many of his young men were in the Sioux army for years, however, before he took active command. He desired peace, and until the winter of 1866-67 he did not lose hope of securing a treaty of peace which

should be in a measure just to his people. But in a council at Fort Laramie, held December, 1866, or January 1867, his *ultimatum* was finally rejected by the United States Commissioners, and Red Cloud at once took chief command of his forces and made a most vigorous campaign. Before leaving the Council he said: "I have done all that I could to stop this war, but I am now convinced that you do not want peace on just terms, henceforth I shall rely upon the Great Spirit, and my trusty rifle." About a year after he made that speech Red Cloud was invited to another Council with a commission of which General Sherman was chairman, and he was offered terms in perfect accord with his *ultimatum* of a year before. He signed this treaty, (known as the treaty of 1868 because ratified in that year) and he has kept it in letter and spirit faithfully to this day. But we regret to be obliged as a just historian to say that the United States has but very partially fulfilled its part of that treaty.

In the spring of 1868 Red Cloud, Spotted Tail, Old Man Afraid of his Horse, Swift Bear, American Horse, Red Dog, and a number of other Sioux Chiefs visited Washington on invitation of President Johnson. They also visited Philadelphia, New York, and Boston by invitation of the authorities of those Cities. Red Cloud then dressed as an Indian Chieftain of the first rank, and presented a very imposing though savage appearance. Now and for several years past he dresses like any other civilized man, and his bearing and manners are those of a gentleman. Hon. Alonzo Bell, late Assistant Secretary of the Interior Department, says of him, "I have met Red Cloud in council often and I regard him the intellectual peer of any man in the United States Senate, and as a diplomat and statesman he has few equals. I desire to add that I regard him as a man of the strictest integrity and highest sense of honor. I am proud to be able to count him among my personal

friends." Secretary Lamar says of a brief impromptu speech of Red Cloud, addressed to him; "It was one of the best specimens of eloquence to which I ever listened." President Cleveland speaks of his speeches in complimentary terms. Hon. G. W. Manypenny, formerly Commissioner of Indian affairs and Chairman of the Sioux Commission of 1876, has a high regard for Red Cloud. He believes him to be a man who has the welfare of his people at heart and is anxious that they should advance in the road to civilization. He says, "Red Cloud is a man of honor and integrity as well as of superior intellectual and rare executive ability."

Fordyce Grinnell M. D. of Newport, R. I., who was for some years U. S. Surgeon at Pine Ridge Agency, says of Chief Red Cloud, "I have heard from the pulpit, eulogies upon men who, sustained by Christian faith, have borne wrongs with meekness, but I defy the recent annals of the Church to furnish a case surpassing that of Red Cloud, enduring as he has with stoical fortitude for years wrongs and insults that cry to heaven for vengeance. I refer to the persecutions and insults heaped upon the Chief by the United States Agent."

That Red Cloud has a keen sense of humor is proven by the fact that when the organ of Acquisitiveness was explained to him his eye twinkled with fun as he said, "I think that is the biggest organ in the white man's head."

It is perhaps proper to state that the examination was made during the chief's visit to Washington last year, and notes taken at the time with a view to future publication, by Dr. T. A. Bland.

Red Cloud has visited Washington as the representative of his people eight different times in eighteen years. Some of these visits have been brief, while on other occasions he has spent months at the Capitol in conference with the President, Secretary of Interior, Commissioner of Indian Affairs, and the committees of Congress. For some years

the United States Agent sent to his people has not had the confidence of Red Cloud or his people. The chief has asked the former administration to remove him and send them a better man. To quote his words: "they would not hear" him. Soon after the inauguration of President Cleveland the chief proceeded to Washington accompanied by his interpreter. He spent two months in the city as the guest of Dr. T. A. Bland editor of the *Council Fire*, the well-known organ of the Quaker Indian policy. He was treated with distinguished consideration by the president and other officials and by the best society people of the Capital city. Numerous receptions were tendered him, and on all occasions he bore himself with the modesty of an American gentleman and the dignity of a prince of royal blood.

Chief Red Cloud is a wise Indian. He has the pride of race common to his people. He holds in great respect the traditional history of the Dakotas, and the political, social and religious customs of his race; yet he recognizes and

accepts the fact, that, to quote his words, "The days of the Indian are gone. His hunting grounds are blotted out, his path is fenced in by the white man. There is no longer any room in this country for the Indian. He must become a white man or die. My ancestors once owned this whole country. They were then a proud people. Now this country belongs to people who came from beyond the sea. They are so numerous that we could not take our country from them if we should try. They have blotted out the Indian trail and in its place they have made a new road. We must travel with them in this new road. I have been walking in the white man's road for many years. I ask my people to follow me. We were all created by the same Great Spirit, and we draw our subsistence from our common mother, nature; we are alike in all respects except the color of our skin. We have always traveled different roads; from now on we must travel even. We must build our two houses into one, and hereafter live together like brothers."

A CHAPTER IN ANTHROPOMETRY.

FIGURES are tedious. But statistics, when they inform us what we desire to know, become deeply interesting. Nothing has been more grievously abused than statistics, when they have been called to prove untenable principles. But statistics, showing us what we want to know and in some cases leading us to want to know rather more than they prove, are exceedingly valuable, provided we only assume just what they show; no more, no less.

One of the most desirable things to be known in the line of anthropology just now, is the signs of variations between race, and families. And things as useful as this are two in number, to wit: the signs of health and the signs of executive ability. Could we know these three or four things we should know

much that is exceedingly valuable and interesting.

Now it is barely possible that among such signs as are, we hope, soon to be discovered, the indications deduced by dimensions, I mean dimensions in a great many directions, taken by a tape line and by a square or its equivalent, may prove something in the line of variation of races, families and capacities.

It is not, I think, sufficient to restrict one's investigations too much on one line. The science of palmistry has done very much to clear up many unknown principles; the science of Phrenology doubtless many more; and if there were any science in pathology, while there may be, for aught I know, the science of physiology has done more. Yet something of precision still remains to be

desired. We want to know more, not less, of man and his development. What we already know is too superficial and general. Some facts are disconnected with each other and with received doctrines; some entirely inadequate, some meagre enough for the grand subject we study. "What is man and what his variations?" is the question in a brief sentence. It is not answered now so succinctly as we may suppose.

As to the pursuit of statistics upon anthropology, we may say that we have sufficient data of a miscellaneous nature and much too little of a specific. We want to know the same kind of facts about a man as about a country. Or, for instance and to be much more specific, his peculiar and characteristic differentiation from all other men and his common qualities with the group of men among whom he is to be ranked.

We want to classify him, qualify his common elements, arrange the groups he represents in as few classes as possible, strike out clearly defined laws and precepts which underlie and govern his

development, and so judge him by his qualities.

The variation of black and mulatto presents a very agreeable field of examination. What, we may ask, are the divided and manifest differences between these men, judged in the group and in large classes? In what proportion do they differ radically? What has been the effect upon the development of the mulatto of the crossing of these two widely separated races—black and white?

To answer these questions let the tape-line, the weighing scale, the measuring rod, the lifting machine be carefully applied, each to each, first noting the manifest variations, next the lesser change produced in the amalgamation of these characteristic people.

Gould's tables at this moment furnish a great many very interesting statistics.

Let us see what can be found, accepting what is known and assuming the meagre data we have only as a faint indication of what may be produced by a livelier and more judicious examination based on better principles.

HENRY CLARK.

FAMILIAR TALKS WITH OUR YOUNG READERS—NO. 12.

BENEVOLENCE.

I NEED not make any great effort to describe the uses of this faculty, for in a talk not long ago with you it was defined, but some questions have been asked, and I have thought it best to say more on the same subject.

Each one of my young friends knows well how pleasant it is to have somebody come to them when they feel downhearted and troubled and speak kindly, and show real sympathy for them. Kindness and generosity help to make our life bright. When a boy has a hard lesson to learn, and he can not understand the rules, or work out the examples in spite of earnest trials, and discouraged and hopeless is just going to

throw aside the book, how delightful it is if some one comes in and says to him, "Let me look at the lesson, Will; perhaps I can make the problems clear," and then carefully and thoroughly explains the rules and works out one or two of the examples! That boy's tears are dried and he sets to work with renewed cheerfulness. This is what we call a minor form of benevolence, but it illustrates the influence of the faculty in making people happy. They who give of their time or money for the benefit of others experience much enjoyment, both through the mere giving, and because the recipients of their gifts are benefited.

All about us are people who appear to be born to be poor or sick, or dependent in some way upon others, and what would their condition be if there were no pitying, generous ones to aid them. You see, my



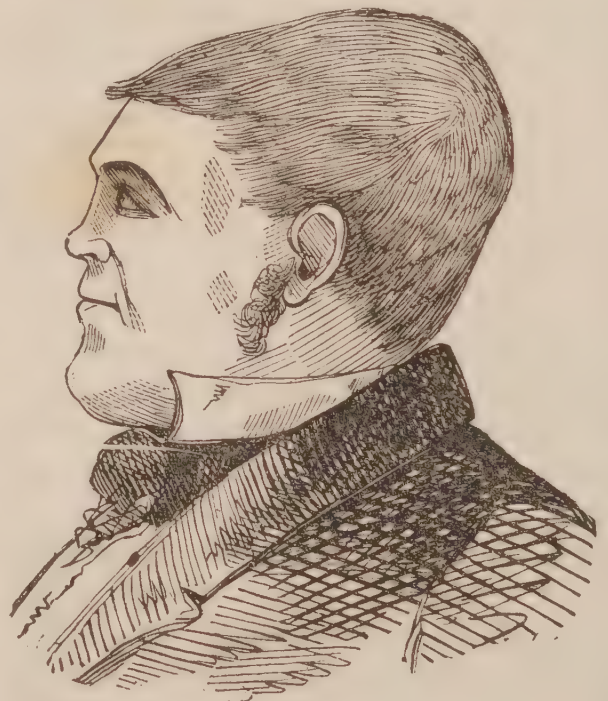
JOHN M. CORSE.

young friends, that our minds are organized for every possible state in life, and for the circumstances of weakness, misfortune and poverty the benevolent faculty has its particular duties. The most of our other qualities are selfish, that is, concern ourselves only, and act for personal interests, but Benevolence has its "eyes" on the affairs of others, and its spirit is entirely independent of any thought of reward or return for what it may do make society or individuals better and happier.

People who have it large show considerable height at that part of the head, and those in whom it is moderate or small have a head that appears to slant downward considerably from back to front—although sometimes Firmness is so very large that the crown looks peaked and Benevolence while pretty

well-developed seems small in comparison. Consider any of your acquaintances who are remarkable for their kindness and good nature, and you will find that they are as a rule well-built up in the front part of the head. The engraving shows large Benevolence. Mr. J. M. Corse, of whom it is a representation, is postmaster of Boston, Mass., having been appointed recently. He has an honorable record for service in the late war. The picture showing Benevolence small is of a very different sort of man. He was a very wicked fellow—a murderer, in fact—in whom there seemed to be nothing of what is called humane feeling. Cruel, hard, grasping, he scrupled not to commit the worst of crimes.

A large share of this organ is a splendid thing to have, but if it is not balanced by other faculties it is likely to prove a misfortune to its owner, because it is so sensitive when large that if its owner does not possess good judgment he will subject himself to much loss and



BENEVOLENCE SMALL. A VILLAIN.

get into trouble. I knew a man in New York who was so ready to oblige others, to lend or give them money or do them favors of other sorts, that he was compelled at length to hire a man to take care of his money and property to pre-

vent him from ruining himself. If you had ever seen Father Mathew, the celebrated Temperance advocate, or Mr. Henry Bergh, the noted friend of dumb beasts, you would not wonder that they were so devoted to their objects of benevolence. Such persons deem it a great satisfaction to be able to devote their time and money in carrying out their generous purposes. Benevolence will make men fight hard to defend others from harm, and risk their lives to save people from danger and death. A boy with this organ large

are very affectionate, and very ferocious too; they will overwhelm their friends with expressions of delight, but snap and snarl at strangers who would be friendly toward them.

IMITATION.

Another interesting faculty claims our attention now. You have watched an organ-man's monkey and laughed heartily over his grotesque tricks. Dressed up in a little fantastic suit he is compelled by his master to go through a funny programme, and you have seen



"I CAN RIDE HORSE, TOO."

"LA! CHARLES, SEE HOW HE MIMICS US."

could not stand by and see a person struggling in the water, he would rush to help him, although he might not be able to swim himself. I have almost been persuaded by what I have seen of dogs and horses that they owe their differences in good nature and docility very much to the amount of this organ in their heads. You know how full and round the head of a Newfoundland or St. Bernard dog is, and their kind natures, but bull-dogs and fox-hounds, are not by any means so large in the upper region of the brain. Some dogs

again and again how he imitates in dumb show movements of his master. The monkey has the power of imitation so active that he is used as a symbol, you know, of the human being who servilely copies the manner of others. In the nimble, long-armed animal we have a showing of the faculty in a special degree. In man Imitation is one of the essentials of mental growth. Could you invent a method for acquiring habits of speaking, eating, dressing, acting, living as a member of society without it? I guess not. The first efforts

a child makes when it is able to recognize different objects are imitative; the little boy tries to walk like papa; the little girl plays keep house, and handles her doll baby "like mamma." Higher up in the scale of development you will see that the system we call the community, the town, or village, is made up by people who copy one another, or as we say adapt themselves to each other.

The best people are those who follow certain established rules of thinking and acting, and this is but a kind of imitation. The rough, disorderly, odd, cranky



MARQUIS OF LONDONDERRY.

ones who are hard to get along with, are unwilling to be governed by rules, or to conform to what is regarded as decent and proper. So, too, there are a good many who want to be considered "original" and they make a show of setting custom at defiance. Such people are deficient in good sense as well as small in the faculty of which we are talking.

The organ of Imitation lies in the brain by the side of Benevolence, and in front of Hope. (See No. 22 in the diagram published in the Sept. P. J.)

It is one of the best demonstrated organs in Phrenology. I never saw a person with it large, *i. e.* with that part of his head nicely rounded up, who was not strongly inclined to observe manners and customs, and who would not be particular in doing just what was expected of him by the company he happened to be in.

Some boys and girls show a remarkable skill in imitating the walk, speech and manner of people; some can imitate the sounds made by animals and birds very closely. I met a young man lately who could imitate the tones of a violin and banjo so well that if I had been in an adjoining room I should have thought some one was playing on the real instruments. Actors differ much in power of mimicry, and generally the most successful have large Imitation. The celebrated English tragedian Garrick was remarkable for his ability to copy to the life men who differed greatly in appearance and voice. It is said that a man who had known Garrick in his youth once travelled from a country town a hundred miles or more to London to see the great actor play, and after witnessing his performance of a part that illustrated a very low type of villainy he immediately returned home completely disgusted, and said that Garrick was the meanest wretch he had ever seen. Now-a-days there are a great many men and women who are called character players, who personate different nationalities, and noted people on the stage, making use of a good development of Imitation which is in most cases all the talent they have.

The Marquis of Londonderry, now Lord-Lieutenant of Ireland, must have large Imitation, if the engraving is like him. He is quite a young man, only thirty-four. His family is considered a very honorable one, having a long descent; and like most representatives of old families in Great Britain, he has a long name—Charles Stewart Vane-Tempest Stewart.

Use your Imitation as much as you can, my young friends, but always have in view its employment for a good purpose. Do not think that you are playing the ape when you are copying what is refined, pure and excellent. Too many boys and girls think it smart to be off-hand, rude, slangy and careless. They do not realize that they are aping a low coarse, disagreeable type of character; that they have picked up the loose ways

HUMAN NATURE.

If you take a step forward from Benevolence you will come to an organ that has a great deal to do with our practical success in the world. I have just given its name. You may ask, "How does it act to be so valuable?" and in answering I would appeal to your own experience. You know that impressions or ideas come to you about the character of people, and the nature



DO YOU WANT A CLERK, SIR?

of the illiterate rowdies of the street, and are making themselves very offensive to decent company. You can not lose by conforming to what society regards decent and becoming in men and women, in obeying rules that improve the manners, and morals. I consider this organ as a great moral agent, not a mere instrument for making fun for one's self and others, but a self improver, and therefore when its uses are rightly understood it is most effective in promoting our welfare in all respects.

of things. You are not able to explain these impressions because you have no good reasons for them; they have so quickly flashed upon the mind that they don't appear to be connected with any process of reasoning. A man is introduced to you; before his name has been given there comes an idea of his character into your mind; you have almost decided then whether or not you will like him, and if the faculty of Human-nature is strong in your head the impression will take hold strongly of your

mind and have some influence in all the dealings that may follow the introduction. Human-nature is an instinct that has a double nature seemingly, being partly intellectual and partly moral, yet its action is entirely independent of the influence of other organs. Its office is to judge character, to give a premonition, *i. e.* a pre-showing or fore-warning of what we shall find to be true. How it

read people quickly, and however kind and gentle he may be, can not fall easily into their ways, and get on their "soft side." You know how easy it is to get acquainted with some boys, while others make you feel awkward and distant, and you don't care to have much to do with them anyway.

In the world of business we find great use for this organ, and if we are so



GENERAL BOULANGER.

does it I am not prepared to say, but observers much older than myself consider its function as beyond question.

A man with large Human-nature has a special gift in understanding others, and can adapt his walk and conversation easily to them. He knows at sight whether he can be familiar with a stranger or must "keep his distance." But one who is small in this organ does not

placed that we must deal with many persons every day, as a salesman, a teacher, a minister, or missionary, a railway conductor, a hotel manager, a foreman in a factory etc., we should have a good development of it to get along well. There are people of little education and rude manners who are very successful in their relations with the world, because they have this organ large and it sup-

plies them with correct impressions, experience having proved that they do best when following their first judgment.

If you take up the study of Phrenology, and have large Human-nature to help in making observations you will get along rapidly, because the quick impression given by this organ will serve as a head-light in rendering the way clear, the science coming in to explain and prove by its regular methods the accuracy of your judgment. One who has to select workmen or clerks is greatly helped by the faculty, and as it increases in activity and strength with

constant use it becomes an indispensable assistant.

The portrait of Gen. Boulanger, the head of military affairs in France, is certainly very strong in Human-nature. The general type of the face is French, and shows spirit, and refinement, with that tenderness on the side of reputation that marks the true Frenchman. He is said to be very popular with the people, and I have no doubt that the organ we have been examining gives him a great deal of power toward making himself acceptable

EDITOR.

THE DECADENCE OF ORTHODOXY.

THE word Orthodoxy has sometimes, no doubt, been in bad company. Yet the name is honorable and of good lineage, being from a Greek root *to think*; and with the prefix signifying to *think well*, which certainly gives it a good recommendation. Bad things, however, often go under good names, and what has passed under the desired appellation has often been a hypocrite; the boasted right-thought has been but a burlesque on reason. Doctrines have been taught in her name which she never acknowledged. Symbols have been presented as substantials; rites as charms or miracle workers; inferences as laws; ministers resolved into priest-hoods, and self-governments into absolutism. But to label these as Christian doctrines would be as reasonable as to denominate charlatanism, science, and Anarchism, government. These evils have had their widest sweep where the Oracles of Faith were silenced, the patterns on the Mount obscured, and the laws and testimonies of the Great Teacher put under lock and key. Nor is it any argument against her that some ministering at her altars work to undermine her foundation and when dis-owned raise the outcry that she herself is in the article of death. Such have

always been, yet when they leave her she merely utters the truth of ages in her judgment: "They went out from us because they were not of us; for if they were of us they would no doubt have continued with us."

Now it should be borne in mind that Christianity rests not, like most of the teachings of Science, on theories, as those about evolution and earthquakes, but *on facts*, as the birth, life, teachings, death, and resurrection of Jesus Christ. There was One who lived in this world whose name was *Truth*; who testified of himself as its personality, as having come to bear witness of it, and in such a way that his assertions became entities, and his deeds demonstrations. His judges became convicts in his presence, and were constrained to witness against themselves. He is the soul of Orthodoxy, and to know him is to experience reality. The whole system is inconceivable apart from his personality. As well speak of Creation as apart from the Creator, as that the historic Jesus is not necessary to his religion; as well assert that Milton was not essential to Paradise Lost, or the life of Shakespeare to his dramas. It is true that much of it was in the world before he taught it, in the sense of John, Paul, and Augus-

tine, inasmuch as they believed he antedated all ages ; was the word or mode of Divine communication ; which in due time was made flesh and dwelt among us ; that he created the world ; was before Abraham and the patriarchs as the " I am," and before his embodiment gave many theophenies as the Everlasting Word ; declaring that his personality was the manifestation of the Father, which if not realized in process of time, would have obscured all prophecy and negatived all previous Revelation.

Christ acted truth and announced facts. He thus taught the old world the truth of immortality, by sending some of the celestial host to converse with mortals, as Columbus to demonstrate his discovery of America exhibited to Europeans some of its native population. To present his crucifixion as the central fact of history himself rose from the dead, proving the unquestionable reality of another life. His wondrous teachings, and equally wondrous life and miracles, with his resurrection and ascension, became life-propulsions, changing human character and the whole current of mundane history. Moving in living forms through the Apostles, Early Christians, and Confessors of the Faith, they aroused the nations to conceptions of exalted existences previously unknown. The historic Christ and his influence on humanity can never be disproved ; and we might as well assert that the world would have been as it is without the discovery of America, the inventions of mechanics, the battles of Gettysburgh, Hastings or Marathon, as without the personal mission of the Messiah. The life-questions of Orthodoxy are not then those of theoretic speculation. They relate to actual occurrences. They are embodied in the Gospels, the Apostolic Creed, the disclosures of another life, religious institutions, historic monuments, and may be tested by the highest experiences of men. Doing righteousness insures faith in it. Christ rested his claims upon

his works, and when inquirers would ascertain what is his true religion, he answers, "Ye shall know it by its works." There is no surer way to know what is the true Gospel. Those who assert that Orthodoxy is not the religion of Jesus have an easy task before them ; which is to show what other system can show a better record. This is Christ's mode of test. Orthodoxy is the mother of nations, the founder of schools, the originator of missions, the inventor of good works, the nerve-power of the great philanthropic movements of the age. It inspired the Temperance movement, in Wesley, Hewett, Beecher, and Edwards ; the Humanitarian in Howard, Elizabeth Fry, and Chalmers ; the Anti-Slavery, in Rankin, Wilberforce, Lundy, Garrison, and Birney ; the Educational, in Knox, Raikes, Hannah More, and all the founders of Common Schools ; the Reformatory for poor city waifs, abandoned, women the poor and the neglected classes ; establishing Ragged Schools, Orphanages, Homes for the Friendless, Sailors' Homes, and cheap Coffee-Houses for laboring people. It pleads against oppression at the throne of every tyrant ; it has Christianized the islands of the sea, effacing Cannibalism, child murder, and tribal wars. Seeking not its own but another's wealth in Europe and in the United States it spends its tens of millions annually upon peoples of other races and climes. There is hardly a form of ignorance or wretchedness to be found in city or village, which it seeks not to remove. It does not all it might do, for imperfection clings to all the works of men ; but its successes are from itself, its failures from without.

If Orthodoxy is not the religion of Jesus, what is ? Let the pattern on the Mount be presented, that by contrast the letter may be chosen. Where is it ? What are its faiths, its charities, its triumphs ? The gospel, we must remember, has been in the world two thousand years, and by this time the nations

ought to know what it is : or have they up to this time been unable to see the reality ? If there are those who know a better gospel than Orthodoxy, they have been very slow in proving its divinity by works. The workers in the old way may well say to their critics, "What do ye more than others ? Ours is a very practical age, and there never was a better time to disrobe a pretender. By all means let the false pride of Christ be disproved, and the New Jerusalem original, which is from heaven, be exhibited to mankind in her saintly attire, and unquestioned works.

Christianity is from Christ ; and to know what it is men must sit at his feet ; just as men sit at the feet of science to learn what it is ; coming with no preconceived ideas as to what should be, but what it actually is. We may be sure that true science goes hand in hand with religion ; both come as heralds from the same God, and must be studied in the same spirit of candor and humility. Science, we must remember, is more human than her sister ; being but the understanding of mortals looking at the infinite ; beings but of yesterday, who began but a few days ago to study the alphabet of creation, and who discern but a small part of it "through the short journey of life's feverish dream." Religion is not so much what man discovers, as what infinite wisdom communicates : the former what man can learn for himself ; but the latter what in his ignorance he can not acquire being lost in the wilderness of sin out of which he can only come through a Divine guide.

Science has ten conjectures where Christianity has one. A celebrated physicist has said, "Extinguished theologians lie about the cradle of Science as the strangled snakes beside that of Hercules ; and history records that wherever Science and Orthodoxy have been fully opposed, the latter has been forced to retire from the lists hissing and annihilated, scorched, if not slain." Now scientists do not always represent true

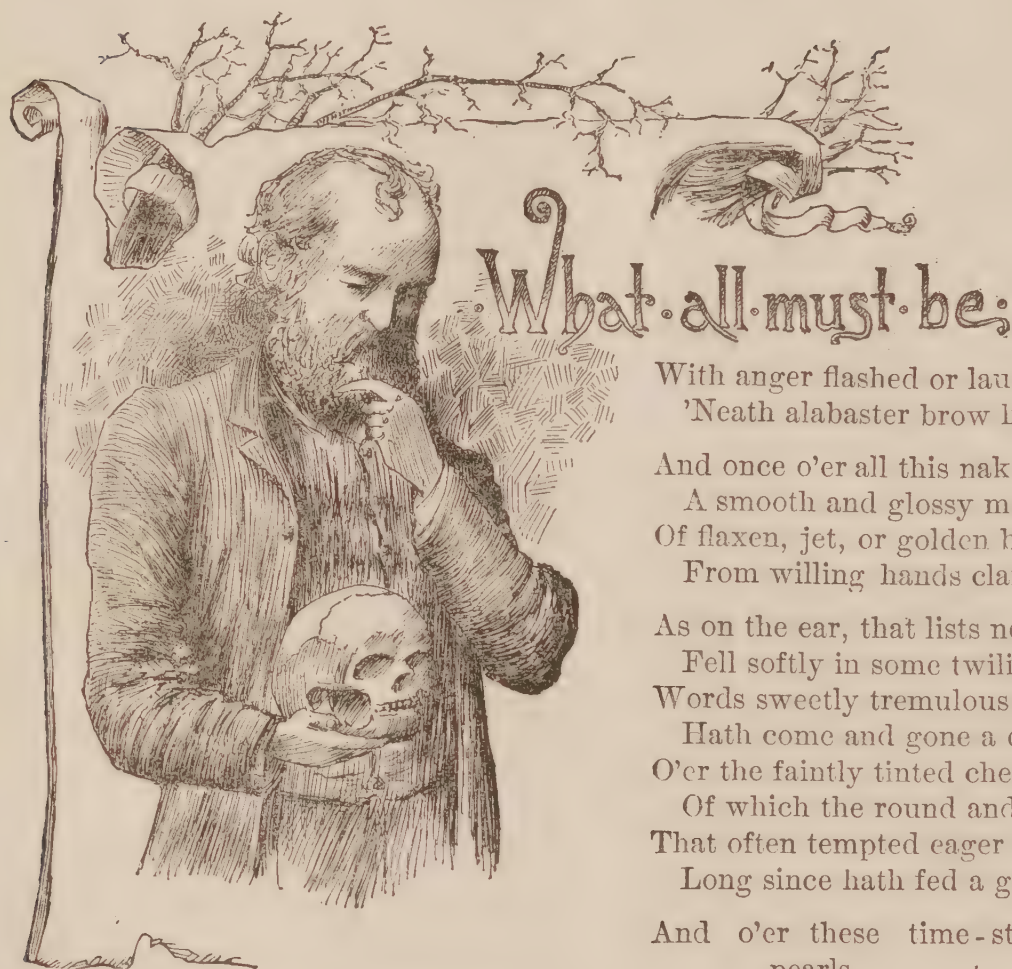
Science, neither do theologians always fairly represent Religion ; but we totally deny that Scientists, as such, have had the advantage over the teachers of Religion. They may favorably compare notes. How many assumptions have we had about earthquakes, one set devouring the other, as the serpent of Moses swallowed those of Pharaoh. The Ptolemaic system of Astronomy gave up the ghost before that of Copernicus. Pretentious Alchemy was bowed out by more confident Chemistry. The Geology of the century has been settled and unsettled, so that the President of the British Association of Scientists has announced that it must be reconstructed from the foundation. What guessing theories have we had about the Sun, some asserting it to be a vast globe of fire ; others that it is an opaque body surrounded with a luminous atmosphere. Medicine is split up into rival schools, *Moral Science* is divided even about its nomenclature. Theories of government, finance, the relation of the sexes, and the first principles of morality, are in antagonism to each other. Yet the Christ of to day is the same as yesterday, and will be forever. Sinai is not more clearly defined against the heavens than the Decalogue, the Beatitudes, the Gospels, and all the duties they enjoin. The natural sun may be hard to explain, not the eternal orb of Righteousness. Orthodoxy may have its mysteries, but its duties come down to the comprehension of a child. It has its prophecies, and not one of them has failed ; and so has infidelity, but every one of them from Celsus to Paine has been found utterly unreliable.

Orthodoxy is not on trial. It has stood the tests of persecution, history, trial of every kind, and the keenest scrutiny of science and reason. There is nothing to take its place or do its works. If men would cast it down, let them show something better ; coming with more authority, and backed with superior proofs and witnesses. The

great want is not better doctrine, but more effective living; not a new apostolic creed, but more fiery hearts and burning tongues to make it known:—more Whitefields, more Chrysostoms, and more Spurgeons, to thunder it in the ears of this generation. Christianity can smile at the attempt of strangling

Science or Criticism at her throat—she has heard of such before—her great solicitude is to see live coals upon her altars, and the trophies of her power hang around upon her walls with the mighty taken from the foes of God and men.

JOHN WAUGH.



"WHAT all must be," the speaker said,
As lightly o'er the polished skull
His skilful hand a moment played.
O'er buzz of student life a lull
Fell swift and all were lost in thought,
Deep thrilling thought of years long past,
And years that yet would crowding come
And rush us on to this—so fast.
Perchance in years long since ago
This sightless, voiceless, empty bowl
With beauty hath been richly clothed
And guided by a kingly soul.
Within those dark and shadowy caves,
That yawn like empty, waiting graves,
Bright eyes have slept and waked, and
wept;
Had silken lash and snowy lid,

With anger flashed or laughing gleamed,
'Neath alabaster brow half hid.

And once o'er all this naked crown
A smooth and glossy mass of hair,
Of flaxen, jet, or golden brown,
From willing hands claimed skilful care

As on the ear, that lists not now,
Fell softly in some twilight hush
Words sweetly tremulous and low,
Hath come and gone a deeper flush
O'er the faintly tinted cheek,
Of which the round and comely form,
That often tempted eager kiss,
Long since hath fed a greedy worm.

And o'er these time-stained, crumbling
pearls

Have closed twin lips of crimson hue,
Which oped with wondrous witching power
When from the absent tongue like dew,
Dropt gems of rich and varied thought,
Or words of wit enkindling mirth,
Or truths from wisdom's fountain brought;
Or kindly loving heart gave birth
To words of tender sympathy,
That lighter made the spirit grow,
And cheered some lonely, hopeless one
Who drooped beneath a weight of woe.

Perchance in songs of olden melody,
With penchant keen for verse and parody,
Or in gay, rippling, merry laugh
A voice of thrilling cadence rose and fell,
The joy of those who knew it best
And loved its sweet enchantment well.

Ah! who may tell, who, what, or where
 This cranium was, or lived, or knew
 Whether it roamed o'er lands afar,
 Or loved the pathless sea to view;
 Whether it used the words of prayer
 To lift the burden of its care,
 And whether on its ear e'er fell
 Words of love or sad farewell.

Ah! these are secrets of the past.
 How high the aims we may not know
 The joys of life, its thrilling scenes—
 Their memory perished long ago.
 And if this skull were disinterred—
 Who can tell, when *I* am dead,
 If neath the sod all undisturbed
 Will quiet rest *my* mouldering head,
 Or if the polished, fleshless frame
 In some less secluded nook
 Of college museum will lie
 Where students oft will come and look;
 And wrestling with the mystery great
 Which hangs above my vacant pate,

With books and charts of heads that were
 Strive thence to gauge its *calibre*?
 Will my bared skull e'er be found
 In some learned doctor's labelled case,
 From whence with calm and thoughtful
 face
 And air of wisdom quite profound
 He'll oft remove it to dilate
 To listening youths in eager strain—
 Of where vitality sits trembling based,
 Where dwells the mighty thinking brain,
 Where the soul's grand citadel is placed,
 Where nerves, like telegraphic wires,
 With wondrous speed alarms proclaim
 Of pain's consuming, evil fires?
 And if through life I act no part
 Worthy a high recorded name,
 What matters it if thus be kept
 The head that won no meed of fame.

MRS. MATTIE J. BANKS.

Vanderbilt, Mich.

* Inscribed to Dr. J. M. Hole, of Salem, Ohio.

A BEAUTIFUL FATHER.

TELL your mother you've been very good boys to-day," said a school teacher to two little new scholars.

"Oh," replied Tommy, looking up eagerly into her face, "we hasn't any mother."

"Who takes care of you?" asked the lady.

"Father does; we've got a beautiful father—you ought to see him!"

"Who takes care of you when he is at work?"

"He 'takes all the care' before he goes off in the morning and after he comes back at night. He's a house-painter, but there isn't any work this winter, so he's doin' laborin' work till spring comes. He says he won't let us eat city soup and wear other folk's old clothes when he is well and strong. He leaves us a warm breakfast when he goes off; and we have bread and milk for dinner, and a good warm supper when he comes home. Then he tells us stories, and plays on the fife, and whittles out beautiful things for us with his jack-knife! you ought to see our home and our father—they are so beautiful."

Before long the lady did see that home and that father. The room was a poor attic, glazed with cheap pictures, autumn leaves, and other little trifles. The father, who was at the time preparing the evening meal for his motherless boys, was at first glance only a rough, begrimed laborer; but, before the stranger had been in the place ten minutes, the room was a palace, and the man a magician. His children had no idea they were poor; nor were they so with such a hero as this to fight their battles for them.

This skilled mechanic, who thought it an honor to do rough work for the city rather than eat the bread of dependence, and whose grateful spirit lighted up the otherwise dark life of his children, was preaching to all about him more effectually than was many a man in sacerdotal robes in a costly temple. He was a man of patience and submission, showing how to make home happy under the most unfavorable circumstances. He was rearing his boys to be high-minded citizens, to put their shoulders under burdens, rather than to become burdens to society, in the days that are coming.

SELKIRK'S COLONY.

THIS region of country, including Hudson Bay, Lake Winnipeg, and their tributaries, was explored and occupied by fur traders, about the middle of the 17th century. Prince Rupert and other British lords undertook at their own expense an expedition for the discovery of a new passage into the South seas, or to China, and for finding trade for furs and other commodities. They made some discoveries, and were subsequently incorporated in the year 1670, under the title of "Hudson Bay Co.," and received a charter from Charles II., granting to them and their successors exclusive rights and jurisdiction over a Territory larger than all Europe, which they called Rupert Land. The charter has long since expired, but they still continue to receive license for trading; and still enjoy superior rights and privileges.

The first permanent settlement, however, was made by a party of Scotch Highlanders sent out by Lord Douglas, Earl of Selkirk, in the years 1812 and '15. They were driven from the farms which they had rented in the North of Scotland, because the British Government thought it more profitable to stock the land with sheep. Being in distressed circumstances they applied to the British Parliament for relief. Their petition fell into the hands of Lord Selkirk, and he went in person to see them. He owned a share in the Hudson Bay Fur Trade, and he had also bought a tract of land lying between the boundary line of the United States and Lake Winnipeg. If they would go over to America he would defray their expenses and give them a home on his own land. He further proposed that two from each family should first go out and prepare for the reception of the parents and others who were to follow.

Accordingly, in the Summer of 1812, about sixty robust men and women,

most of them relations, left Scotland to find a home in the American wilderness. They had a rough passage, and several of them died of typhus fever after they entered Hudson Bay. They were obliged to winter at Fort Churchill, and did not arrive at the place of their destination on Red River till the next summer.

While at Fort Churchill they were short of provisions and those trading with the Indians at that post, considering themselves "lords of the soil," took advantage of their circumstances and greatly oppressed them. They even took the locks from their fowling pieces to prevent their killing game, and then sold them salt and injured provisions at an enormous price. To them the winter was a long one. They left that place in March, on snow-shoes, and after encountering many difficulties they reached Red River; not to make a quiet home, but to meet a continuation of trials and disappointments.

A company of French fur-traders, known by the name of the "North-west Company," had, after the cession of Canada to the British in 1763, rapidly spread themselves over the interior of British America, to the Arctic Circle and Pacific Ocean, and finally extended their establishments to Hudson's Bay. A contest between this and the Hudson Bay Co., marked with great bitterness and animosity, was carried on for many years, and ended finally in the coalition of the rival parties in 1821.

It was during these quarrels that the first company sent out by Lord Selkirk arrived at Red River. The Hudson Bay Co., favored the plan of their settling there; the North-West sternly opposed it. They had nothing against the people themselves, but thought that their settling in that vicinity would strengthen the Hudson Bay Co., and weaken their own. In other respects they treated the emigrants kindly.

While they told them plainly that they would have trouble if they settled there they at the same time offered them a free passage to Canada and also to see them comfortably settled. The treatment which they received from a party of the Hudson Bay Company at Fort Churchill the previous winter influenced them to accede to the proposal of the North-west Company, and they went to Canada that same summer, and settled on the North of Lake Erie. A few, however, crossed the line into the United States Territory, where they still reside.

According to the original plan a second and larger party came over from Scotland in 1815. The first party had written to them of their trials and changes, but their letters were intercepted, and not one of them had reached Scotland. When they arrived at Fort York, on Hudson Bay, they found two of the first party and learned from them the fate of the rest. These two had determined if possible to find their way back to Old Scotland. They were discouraged and disheartened. The hope of finding a pleasant home with the dear ones from whom they had been for three years separated was suddenly dashed to the ground. What could they do? They were refused a passage back to Scotland; and even could they go they had no home in the land of their birth. There was no alternative. They were obliged to go forward knowing that trouble was before them; their fears were more than realized. It was seven long years before they were comfortably and peacefully settled.

This second party arrived at Red River, October 1815, and not being able to get provisions for the winter they went out on the plains in quest of buffalo. In the spring they returned, and notwithstanding the violent opposition of the North-west Company, who wished them to follow their relatives to Canada, their lands were measured off to them and they put in their seed. But being

an additional object of contention for the already disaffected companies they could not be happy. Trials were at hand. On the 19th of June, 1816, the North-west Company carried their hostile threats into execution. They had gathered a party from their various trading posts, and with others (principally half-breeds, to each of whom they had promised a worthy Scotch woman as a reward for his services) they numbered 70 men, armed and equipped for war. Their plan was, first to make themselves masters of the place, by taking Hudson Bay Company's fort; then to kill the Scotchmen to prevent their settlement, and to save the women that they might be able to pay the half-breeds according to promise.

The Hudson Bay Company fearing an attack had collected at their fort, which at that time was a poor security against the enemy. As the North-west Company approached, all mounted, Governor Semple, with a few men unarmed, went out to meet them. Others of the Company gathered round to see what would follow. They were fired upon and twenty-four of their number were killed, others were taken prisoners. The massacre exhibited a scene of savage cruelty. The Governor fell first; and though helpless, was not mortally wounded. He gave his antagonist his gold watch to spare his life, but he was soon after dispatched by an Ojibway Indian, who, putting the muzzle of his gun to his head, blew out his brains. (The author of this deed was Mah-ji-gah-bah-we, a medicine man and conjurer of the Pillagers or Leech Lake band.) The Governor's faithful servant held him in his arms and shared a similar fate. The Scotch were saved by the influence and kind interposition of a Mr. Grant, but on condition that all would leave the place. Grant was a young man of Scotch and Indian descent, and was educated in England. No other man, perhaps, could have saved them. The dead, twenty-four in number, of

the Hudson Bay Company, lay on the field till the evening of the next day, when the fort was surrendered and they were allowed to bury their dead; the conquerors furnishing them a guard while doing it. It was done in great haste, fearing that the vanquished might still be shot down by the more ignorant and bloodthirsty of the enemy.

Early the next morning, June 21st, the would-be Colony all started off with the Hudson Bay Co., for Fort York. Lord Selkirk, being at that time in Canada, heard of this outbreak and sent a company of soldiers to retake the Fort. This was done; and the subdued party after wintering at Fort York returned in the summer of 1817; but too late to cultivate the fields and gather a supply for winter. In this condition Lord Selkirk found his Colony, the only time he visited his possessions on Red River. He was much affected by the recital of their sufferings. It was thought to have seriously affected his health, and shortened his life. He had expended eighty thousand pounds sterling of his own property for his Colony. The land he had purchased, excepting what he gave to his Colony, was made over to Hudson Bay Company. Although the Scotch had suffered so much they loved Lord Selkirk and appreciated what he had done for them. He returned to Europe and died there.

I have said that the subdued party, after the Hudson Bay Fort was retaken, returned to Red River in 1817. On their arrival a scene presented itself which brought vividly to mind the trials of the previous Summer. The dogs and wolves had taken from their shallow graves the bodies of the slain and they lay scattered, an arm or foot here, and a head there, to a great distance. After reburying the dead, nearly the whole settlement, (which had by this time some additions from Europe) made arrangements to winter again on the plains.

In the spring of 1818 they returned with some furs and dried buffalo, and

went to work to make for themselves comfortable dwellings. They also put in what seed they had, but from this time for three years their crop was cut off, in part or entirely, by locusts. These came on the Sabbath in a cloud so dense that people returning from church with difficulty made their way through it.

The barley, then in the ear, was completely cut down in two hours. Wheat was not destroyed. They stayed but a very short time, deposited their eggs, and went as they came in a dense cloud. Travelers in passing through Lake Winnipeg soon after found locusts drifted up on shore to the height of four or five feet or, as they said, "nearly as high as a man's head." The next year a multitude sprang up on their own soil and literally devoured every green thing. The settlers were again forced to winter on the plains. The year following there were not so many locusts, but enough to destroy crops, and for the last time the Colony went to the plains. They sent to Prairie du Chien for seed to sow in the spring. Cattle, also, they procured in the United States. Cows cost \$90, and sheep were equally high.

In 1821 the two contending fur companies united under the name of "Hudson Bay Company." Selkirk's Colony soon began to prosper. It was increased by many of the Hudson Bay Company's discharged servants (mostly Half-breeds) to each of whom was given a small lot of land, and others came in. Talking of the past was prudently avoided. Indeed they dare not do it; they had had trouble enough. The young people of Selkirk's Colony have but little definite knowledge of what their parents suffered from parties among whom they are now living in peace. The story has not been rehearsed in their ears. It is astonishing. But, "a burnt child dreads the fire." Four or five years after this the colony was visited by a flood which swept away their houses and much other property. In the month of May, the time for planting and sowing, they were paddling over

the plain some miles from their habitations to find a place for the soles of their feet. As soon as the waters dried up they sowed barley and such other seeds as mature quickly and furnished themselves a scanty supply of provisions. In rebuilding they took the precaution to set their houses a little farther from the river on the higher ground so that subsequent floods have not been as destructive.

The present number of inhabitants at Red River is about 5,500. Many families moved to the United States and Canada for want of church privileges, for when they left Scotland they had the promise of a pastor who could speak Gaelic, but none came. Now, after about thirty years most of them understand English. Still they are looking for a preacher of their own creed, while they worship with Episcopalians.

The settlement lies on both sides of the river, and extends more than forty miles from its mouth. Most of the English and Scotch live between Upper Fort Garry, or the mouth of the Assiniboine, and Lower Fort Garry—a distance of 18 or 20 miles. More than one-third of the whole settlement on Red River are mixed blood—the descendants of the fur companies' discharged employees and their Indian wives. They live farther up the river. There is also a settlement of Indians near the mouth of the river, say five or six hundred (Crees and Ojibwees). They were gathered by Rev. Mr. Cochrane, an Episcopalian, who was sent here in 1832. He is still their leader—*The Father of the settlement*.

In the settlement are six Episcopal churches, a Roman Catholic cathedral and two or three chapels, also a nunnery managed by twelve or fifteen nuns from Canada. There are seven schools which are supported, in part, by the Church Missionary Society, London. But the highest and the most important of all the schools is an Academy, or Boarding school, patronized by the Hudson Bay Company—where their children are

trained for business. Great attention is paid here to drawing, painting, and mathematics. It is a nice institution; neatness and order are visible throughout the establishment.

Their buildings and cultivated fields, at least through a part of the settlement, lie on the west side of the river, between the river and the carriage road. West of this road is an extensive prairie where all their cattle feed in common. Just before sunset they may be seen scattered over the plains far as the eye can reach, every herd making its way to its owner's gate, which opens into a lane running by the barn to the river. Their hayfield is also in common; and that all may fare alike a law of the place forbids any one to commence haying before the 20th of July. The women do not go to make hay, but in securing crops at home taking care of cattle, etc., they do their share. Some of the "bonnie lassies" are first-class reapers, (with a sickle.) No compulsion, nothing like servility, but their work is done in a way which excites admiration. When a father, a husband, or a brother comes home cold and tired the women and girls seem to feel it a pleasure to put up the team, while he warms himself and partakes of refreshments which are in readiness for him.

They card and spin their own wool, and full their own cloth. When a web is brought from the weavers, if it is to be fulled the young men are invited in, the cloth is wet with soap-suds and thrown upon the floor. The men sit down opposite each other with the cloth between their feet and a support at their backs, and commence operations by kicking it; each one resting as he finds it necessary, till it is kicked enough. While the men retire to change their dress the women gather up the cloth and prepare supper. The whole reminds me of an old-fashioned New England quilting.

As the Selkirkers have no market they manufacture on a small scale; but liberal premiums are awarded to such as

make the best articles. A few weeks since a Scotch woman received 30s. sterling for a little skein of woollen yarn—not more than she could draw through her finger ring. They are remarkably industrious and economical, generous among themselves, and their hospitality can hardly be excelled.

AUNT BETSY.

NOTE BY THE WRITER.

BELLE PRAIRIE, MINN., May, 1886.

It should be remembered that the manuscript, of which this is a copy, was written long ago; but it contains facts which I have reason to believe you will never get from any other source. The article has been printed where I never gave it for that

purpose. In my journeyings 35 or 40 years ago, I picked up a book, and on opening it my eyes lit on the article. Of course I knew its origin. It was credited to *Boston Traveler*. I had sent it to Rev. David Greene, a Secretary of the American Board, a personal acquaintance; but without a thought of its ever being printed. Probably, by this time, it is drowned in the ocean of more attractive reading. But as Manitoba is approaching mature manhood facts in her infantile history will be of more and more interest. The place where we lived in 1847-8 near the mouth of the Assiniboine, is now called Winnipeg. It is the capital of Manitoba—and here occurred the principal events mentioned in this articles.

ELIZABETH TAYLOR AYER.

A GREAT DAY.

THE twenty-eighth of October, 1886, is a red letter day henceforth to two great peoples, the French and the American Republics. The inauguration of the grand statue, "The Goddess of Liberty enlightening the world" was an event well-worthy of all the enthusiasm displayed. Unfortunately for the sight-seers the day was gloomy with fog and rain, else the fine bay of New York, would have presented one of the most beautiful scenes ever presented to mortal eyes. The decorations of the fleet of boats were not only elaborate, but tasteful, "manning the yards" of the gun-boats was one of the especial features of the program, although only visible to those within a short distance of the ships. The fog hid much of the gay bunting and rendered the signals that the ceremonies were about to begin invisible so that the grand salute of whistles and cannon became a bewildering medley of noises, rendering it necessary to delay the opening prayer for some minutes.

The majestic face of the great statue was veiled with a French flag, the cords to which were cut by the President of the United States, when the veil slowly lifted and disappeared through the diadem giving the noble, earnest features to us, our own for all time.

One of the finest points of the program was the address of M. de Lesseps, the great engineer, now in his eighty-fourth year, of medium size, well-preserved, looking sixty rather than eighty, reading his address without glasses, able to stand bare-headed while the the drizzling mist trickled on his closely cut gray hair. With a voice as clear as a bell, and with much natural oratorical powers, he held the audience closely attentive, although a large portion of it was unacquainted with the French language. One of his most marked sentiments was that the love of *liberty* was so ingrained in the French and American people that it could never die. *It is perpetual*. It is a religion. The applause was deafening when he said, "The brotherhood between France and America has never been broken, now it can not be broken, for this grand statue is the gift of the whole French people; her footstool has been reared by the whole American people."

M. de Lesseps is a grand exposition of the fact, that a busy life, simply lived, does not consume vigor, or bring premature age; it is not what we do but the way we do it, that wears us out and makes us appear old before our years declare us to be so.

The Hon. Wm. M. Evarts sustained his always enviable reputation, while the Hon. Chauncey Depew, rose to the occasion and outdid himself. President Cleveland in his modest citizen's dress was almost the only one of the distinguished group, the center of attention, who bore no decorations, medal, gold lace, or epaulets, and in his simple, straightforward manner with well-chosen words he accepted the gift for his people. "What a wonderful thing!" a lady remarked, "the President without a guard in this vast crowd, and not one would lift a finger to harm him."

The crowd was good-natured, as a New York crowd usually is. In the midst of the dense, rain-pelted throng stood the fine figure of Bishop Potter, in his robes of office, bearing aloft his umbrella and striving to shelter others, stoically accepting the situation, when if the word had been passed "Make room for the Bishop," it would have been done—another triumph of our man-making institutions.

The President in descending the gangway of the barge, through which to reach the "Dispatch," did not stoop quite low enough and bore away the marks of a collision with the beam in a deep dent in his hat. Later on we

saw him laughing over the accident and pounding out the dent with his stout fist. A young tug-boat captain brought his bride out on the guards of his gaily decked boat, and with his arm about her waist saluted the President with an air which said plainly, "you see, you are not the only man who has a handsome wife."

We wish that every reader of the *PHRENOLOGICAL JOURNAL* could have an opportunity soon to see this wonderful achievement of art, for it is truly wonderful that a man could plan such a vast structure and have its graceful outlines so accurately preserved in every part. In November, 1884, we gave a portrait and sketch of M. Bartholdi, which will be interesting in connection with the report of this long-expected consummation of his hopes. To see Liberty's great torch aflame at night is equal to a view of her grandeur by day, and must ever continue an object of especial interest to all, whether citizens of New York or visitors. Strong was the tie by which the gallant Lafayette bound us to France, but much stronger has it become through the uprearing of this last noble testimonial of that sister Republic.

A. E.

THE RECIPROCAL INFLUENCE OF THE MIND AND THE BODY.

THERE is not a natural action of the body, whether involuntary or voluntary, that may not be influenced by the peculiar state of the mind at the time.—John Hunter.

The mind is a conscious organism, which can exist independent of the body; but its influence over the body is very great, because the body is simply an organism through which the mind manifests itself. The connection of the mind with the body is so close that it is difficult to tell where it commences and where it ends. The extent and nature of this connection can only be known

by the same kind of observation and reasoning by which we become acquainted with the outer world. We can see their form only as we see the form of things in the external world; but we can not feel, nor can we see their structure. We can only arrive at it by obscure and difficult research. The most distant objects in the universe are more accessible to our observation, and in many respects more intelligible to our understanding, than the material house in which we dwell. There is a tendency on the part of man to look beyond self, and fail to know himself. We presume

to scan the whole universe of outward being before we spend much time in studying self closely and systematically. Man discovered the movements of the planets long before he discovered the circulation of his own blood. Yet the current of the blood is so much a part of himself that when it stops his thoughts cease.

The relation of the mind to the body appears to be closest in those mental operations in which no apparent movements of the body are concerned. In the exercise of pure reasoning the mind appears to act almost independent of the body. By an effort of the will we direct our attention to new objects, and almost in the twinkling of an eye we pursue new trains of thought.

The mind, it is evident, controls all parts of the body, which are under the influence of the will. When we walk, talk, touch the strings of a harp, or the keys of an organ, it is done primarily by the act of the mind displaying itself through the bodily organs. As the mind has such influence over the body in health we must conclude that it also greatly influences it in disease. A person may be very hungry, receive a sad message, and be unable to eat at all. It is the influence of the mind over the bodily organs that for a time suspends the appetite. I knew a young lady who was almost a complete invalid, and as soon as she became a Christian her health returned. We did not consider it miraculous, nor did she have to visit a modern faith-cure establishment. The great London physician was entirely scientific when he told the young French nobleman that Jesus Christ was the physician whom he needed. The young man's mind was disturbed about eternity, and this affected his body.

It is admitted by all that excessive mental labor is opposed to the cure of nervous diseases. Dr. Bennett, of Scotland, claims that predominant ideas make their impress upon the body in disease. If that be true all ideas have

their effects upon the body and upon the character of man. A man is as he thinks. The Bible is scientific in its claims, that man will be judged for his words and deeds. It is so important that we control our thoughts, for we remember that every bad thought makes an impression upon our very being that it may be difficult ever to have erased. Every good thought is a step in the direction of heaven, or, in other words, of refinement and breadth of character.

J. W. LOWBER, PH. D.

BEAUTIFUL THINGS.

Beautiful faces are those that wear—
It matters little if dark or fair—
Whole-souled modesty printed there.

Beautiful eyes are those that show,
Like crystal panes where hearth-fires glow,
Beautiful thoughts that burn below.

Beautiful lips are those whose words
Leap from the heart like songs of birds,
Yet whose utterance prudence girds.

Beautiful hands are those that do
Work that is earnest and brave and true,
Moment by moment the long day through.

Beautiful feet are those that go
On kindly ministries to and fro—
Down lowliest ways, if God wills it so.

Beautiful shoulders are those that bear
Ceaseless burdens of homely care
With patient grace and daily prayer.

Beautiful lives are those that bless—
Silent rivers of happiness,
Whose hidden fountains but few may guess.

Beautiful twilight, at set of sun,
Beautiful goal, with race well won,
Beautiful rest, with work well done.

Beautiful graves, where grasses creep,
Where brown leaves fall, where drifts lie
deep,
Over worn out hands—Oh, beautiful sleep!

E. P. C.

THE PHILOSOPHY OF RELIGION.

FROM the study of the ethnic or national religions we learn that man is constitutionally a religious being, that he has a religious nature, religious instincts and emotions. Religion is universal, and had an existence among men before science, art, philosophy, law, government, literature, or civilization. All systems of religion are natural in the sense that they have grown out of man's nature, and were all a natural tendency of the human soul to worship. The institutions of religion have grown out of man's religious nature, as society has grown out of his social instinct, the family out of his domestic affections, ethics out of his moral intuitions, and science out of the application of reason to the phenomena of nature. Like every other form of human development religion is natural and reveals in the finite a want for and a faith in the existence of the infinite.

The functions of Veneration, Conscientiousness, Spirituality, Benevolence and Hope, in their harmonious development and united exercise are the production of theoretical, experimental, and practical religion. Physiology as well as psychology reveals man's religious nature.

On its subjective side religion is natural, on its objective side it is supernatural. As a movement of man it is natural, as a revelation of God it is supernatural. Faith is natural, but God as the object of faith is supernatural. Christian morality is natural, but the sermon on the Mount was a supernatural revelation. Love for Christ is natural, but Christ's work, character and life were supernatural. Religion is a natural development, but it has taken place very largely under supernatural conditions. There is in it a human and divine element. It is human faith in divine truth, human love for a divine person, human obedience to a divine

law, a human experience of divine love, human trust in a divine father, human submission to divine authority.

Dr. Merrill in his "Philosophy of Religion," holds that all worship springs from man's feeling of dependence, sense of weakness, and conscious helplessness. This may be true, but it is not the whole truth. Religious phenomena as certainly reveals faith in God's power, wisdom and goodness, as it shows in man a sense of weakness, ignorance and sin. Practical religion in its faith, worship, benevolence and zeal, reveals man's strength as well as his weakness. It reveals largeness of spirit, grasp of thought, strength of will, and energy of character. The zeal, consecration, devotion, benevolence and courage which we witness in the leading religious characters of history manifest great power. No form of human activity has shown more energy of thought, feeling and action than has been shown in the religions of the race. Dr. Tyndal holds that the seat of religion is in the emotions, and not in the intellect; that religion is a feeling and not a thought, that it does not belong to the head, but the heart. This is the statement of a half truth, and the affirmation of a positive error. It is true that religion is an emotion, but it is not true that it is not also a thought. There is no emotion without intelligence, and no rational feeling without thought, in human experience. In man's nature there is no heart without a head, and no enthusiasm without reason. In the action of the human mind the intelligence precedes emotion, thought arises before feeling, and the head thinks before the heart loves. Knowledge is the necessary condition of affection, intelligence of emotion, thought of feeling, and feeling of action. We never have intelligence without emotion, and we never have in the rational mind emotion with-

out intelligence. Dr. Tyndal's theory is, therefore, based upon an incorrect psychology, and is for that reason untrue, and can not be applied in practical life.

But even if religion was only an emotion, as the Doctor contends, that would not prove it untrue or without an important function. The existence and function of the emotions are facts of human consciousness and experience, and history shows that feeling is just as necessary and important as thought. Emotion is the great working force in practical life, and without it the great enterprises and industries of the world would stand still.

Comte's theory, as presented in his "Positive Philosophy," that religion is a temporary stage of human progress, and not a permanent form of human development, is contracted by consciousness, experience and history. His great social law, that the individual and society pass through three stages in its progress from savagery to civilization, that is, the theological, metaphysical and scientific, is in no sense true. There is no such law of social progress. It is true that theology, philosophy and science are three forms of human development that are mutually inclusive, and not exclusive of each other. As forms of human development they coexist in the same

individual and the same society. They do not injure, but assist each other, and science attains its largest growth only when accompanied by philosophy and religion. The present is the most scientific age the world has ever seen, and it is also the most philosophical and religious. The English, American, French and German people are more scientific than any other people on our globe, and at the same time they are truly philosophical and religious. Religion is, therefore, a permanent element in human character and persistent factor in human progress. Man will never outgrow his capacity for it, his need of it, and its influence upon his life and character. Its influence upon man is permanent and will become universal. It is demanded by man and nature, it meets a universal want.

The position of Max Muller, that religion is the result of man's intuition of the infinite, or of the exercise of a spiritual faculty, the function of which is religion, is doubtless true. Religion grows out of man's relation to God as his Creator, Father, and Savior. Man's religious nature recognizes this revelation and the duties growing out of it; and universal religion is man's effort to discharge these duties.

WILLIAM TUCKER.

HOME CULTURE VS. HOME WORK.

AN observer says in this practical vein: "One of the great questions which vex the minds of thinking men and women to-day is the vital importance of a higher standard of culture, and some method of obtaining it; or how the house-keeper may be a home-keeper in the truest sense of the word, and not sink into a veritable drudge with no thought about providing for the physical wants of her family; how home labor and culture may go hand in hand and bless the life of the household.

When the cares and labors of house-keeping come to us if we suffer it to absorb all our time, leaving us none we may call our own to devote to reading, to the study of the leading questions of the day, to the companionship and social minds of husband and children to the sweet amenities of home, then all previous culture will avail us little in the building of a home.

Overwork of any kind unfits one for all other duties, but do we not do a great deal of unnecessary work? would it not

be better to cook plainer food, dress plainer and devote the time thus gained to the more important needs of our household, which is of the most importance, that our families should have pie or cake at every meal and be clothed in the extreme of fashion or that mother should be fresh and cheerful, ready and able to amuse and instruct the children; to lead them into the sweet companionship of books and nature? Which memory would we prefer our children to have of us, long years hence, when they have gone forth to battle with the cares of life, the memory of the good dinners we used to cook and the elaborate dresses we made for them, or that mother was always ready to give a listening ear and a ready answer to their eager questioning? In fact to have them remember that mother was always their dearest friend and most loved companion.

I would not have you infer that I advise slighting the necessary work of the household or that I counsel carelessness in regard to dress or home adornment. No, I would have the home made as beautiful in every way as it is

possible, but beautiful both to the eye and the heart, such a home as will leave loving memories in the hearts of our child and bless them all their days. It is only for a few short years at best that we can have our children with us, and it is for us to say whether, as they grow older, they shall grow away from us. The impressions of early childhood do more to form the character than all the instructions of later years, and parents can never be too wise for their wonderful work.

As the mother is in culture and refinement, so to a great extent will the household be. Then let us never, for the love we bear our children, for the hope we have of their being wiser and better than ourselves, never let us become such slaves to our housework that no time is left for social and intellectual culture, for the small sweet courtesies of life; no time left for the blessed work of building a happy home, from which our children shall go forth, noble men and women, strong to battle for the right and to do good service in the work of the world and the upbuilding of humanity.

HAIR AND CHARACTER.

IT is interesting to note what this or that one has to say about character, especially if he pursues a calling that brings him into rather close contact with people. The shoemaker gathers inferences from the different shapes of feet and the manner in which they wear shoes; the tailor gets impressions from the way his customers wear their clothing, the barber, too, why should he not have his opinion? He comes in direct contact with the head, and in manipulating hair and beard he ought to make some shrewd inferences. One is reputed as giving his views in the following quite finished style:

Did you ever notice that people of very violent temper have always close-

growing hair? It is a fact that every man having close-growing hair is the owner of a decidedly bad temper. It is easy enough for me to note at a glance how a man's hair grows. Then I know how to handle him. Men of strong temper are generally vigorous, but at the same time they are not always fixed in their opinions. Now, the man with coarse hair is rooted to his prejudices. Coarse hair denotes obstinacy. It is not good business policy to oppose a man whose hair is coarse. The eccentric man has always fine hair, and you never yet saw a man of erratic tendencies who at the same time had a sound mind, who was not refined in his tastes. Fair hair indicates refinement. You

may have noticed that men engaged in intellectual or especially in esthetic pursuits, where delicacy is required, have invariably fine, luxuriant hair and beard. The same men as a class, particularly painters, are always remarkable for their personal peculiarities.

"The brilliant, sprightly fellow, who, by the way, is almost always superficial, has generally a curly beard. If not, his hair is curly. It's easy to bring a smile to the face of the man whose hair is curly. He laughs where colder natures see nothing to laugh at. But that is because his mind is buoyant and not deep enough to penetrate to the bottom of things. There is a great difference between coarse hair and hair that is harsh, though it requires an expert to distinguish it. For example, a man's mustache may be as fine as silk and yet can not be trained to grow into a graceful curve. That's because the hair is harsh. Now, people whose hair is harsh have amiable, but cold natures. They are always ready to listen, but it is difficult to arouse

their feelings. In men of this disposition the hair on their heads is generally, in fact, almost always, of a shade darker than their beards. When the beard is full, covering the entire face, the color varies from a dark shade near the roots to red, which colors the ends of the hair. These men have very rarely a good memory. They forget easily, and often leave a cane or an overcoat behind them in a barber's shop. They are great procrastinators and are bad at keeping appointments. Think over your acquaintances and see if the man who is habitually slow has not a mustache or beard of a lighter shade than his hair. It's always the case. These are the men who come in late at the theater, and get to the station just in time to miss the train. But philography is a science. It takes years of study and application to acquire it. From long practice and a natural liking for the art, I have attained considerable skill in discerning character."

FRUIT IN FLORIDA.

A FEW days ago we went "down to Johnson's" on our annual trip for grapes. Here is the largest grape vine on this side the Ocklawaha River, the main vine is perhaps ten inches in diameter and covers an immense arbor some forty feet square. The grape is of the Flowers variety said to be a seedling of the Scuppernong; this last, however, is a white grape, while the Flowers is a dark purple. They are borne in clusters of not more than ten or twelve, oftener two or three grapes in a bunch. The yield is enormous; they commence ripening in August and last till October. As they are unlike the northern varieties in habits of growth, they are quite different also as to the character of the fruit, the grape in addition to the pulp possessing a quite fleshy skin, which somewhat resembles, and can be used in place

of, the plum, making a very fine flavored sauce or preserve. The pulp is white and makes when used alone a very superior and transparent jelly.

We found Mrs. Johnson in her detached kitchen—the kitchen here among the natives is almost invariably a smaller building standing some little distance from the house proper. Her clean, freshly sanded floor was strewn with the refuse of a couple of nice palmetto cabbages she was preparing for dinner. The terminal bud of the palmetto tree is enveloped by sheathings in successive layers to the thickness of four or five inches. The outer of these being removed, the cabbage is disclosed smooth and white as ivory. It is so brittle that a large portion of it can be broken up easily with the fingers. When uncooked the bud resembles a green chesnut in

taste, but once let it be properly cooked, stewed with good ham and served with a dressing of cream, and you have a dish that is most agreeable. In a large pot on the stove was simmering a stew of the cassava, the savory smell of which was really quite an incentive toward accepting the lady's kind invitation to dine with them. We had intended driving around by the hummock road, hoping to secure a specimen of the yucca, or Spanish bayonet, which is quite rare in this vicinity though occasionally found in the river hummocks. On mentioning this fact Mrs. J. exclaimed, pointing to the corner of her yard, "Yonder's a plenty of that 'ar, an' you 're welcome to all you'll hev, t'hout gwine ter that peskey hammock fur it nuther." That settled the matter and we spent a pleasant hour rambling around the quaint old place which has been settled "nigh onto thirty-five years," as the old gentleman informed us. One side of the old yard was completely overrun with the *passiflora incarnata*, in whose striking and very peculiar blossoms the early missionaries of South America fancied they saw a representation of the implements of the crucifixion. The fruit is the size and shape of a hen's egg, with a decidedly strong smell, but much esteemed by those who have learned to like it.

After dinner, having secured our yucca, and stored away our grapes in the baskets and boxes we had brought for the purpose, we set out for home, taking the road which borders for some distance on the "Big Scrub," a tract of sandy land rising to a considerable elevation in places, covered with a thick growth of scrub-oak, small pines, and a great variety of shrubs and flowering plants, interspersed with saw palmetto, prickly pear, etc. with here and there a long reach of taller growth, proving that the land has strength for more than the stunted scrub, which is evidently the survival of what best withstood the constant burnings of the past, sometimes

occurring through accident, but more oftener through the carelessness of the hunter for whom this tract is a veritable paradise. It has already been demonstrated that the orange can be very successfully grown on this land.

Florida, though the first State discovered, is the newest in the development of its resources. It is hardly ten years since the superior quality of her oranges and the adaptation of her climate for producing other fruits has been understood. Among the principal needs of Florida for the development of the resources of the State are industrious and enterprising settlers who are not mere speculators, experienced farmers and truck-gardeners; dairy farmers for the supply of milk, butter, beef, etc., experimental farms, nurseries, and apiaries; and to these needs may be added cheaper and more direct transit for the bringing of the crop to the northern market; and, lastly, the obliteration of a good deal of the needless and puerile rivalry existing between different sections of the peninsula. We have had this year a most tempting succession of fruits, commencing with the strawberry which, ripening in January, continues bearing until July. Owing to the unprecedented cold of last winter the crop was several weeks later this year, but suffered neither as to quality or quantity. The dewberry whose white blossoms have starred the nooks and corners and made even the old fence rows bowers of beauty, ripens in March and April. These are succeeded by the huckleberries, both blue and black. The banana ripens its fruit at almost any season, when it attains the proper growth and age; and as the fruit can be prepared for the table in so many different ways it is always in great demand. In March the Japanese plum is in season, although not always in market; for it is in Florida, as in most of our sister States, the successful culture of a variety of fruit is by no means so general as a list of the availabilities would indicate. In May we have the

Chinese or Peento peach, an odd looking fruit, resembling a little biscuit in shape, and of splendid flavor. These are not at all common and bring a high price. The common peach does exceedingly well in some localities, ripening the later part of July. Of the latter there is little to be said except that the tree is in bloom and with fruit at the same season, and is desirable as one on the list of semi-tropical fruits. The pomegranate as an edible is a delusion; one breaks the russet rind to find what appears like grains of rice embedded in a pinkish jelly. This has a very fine sub-acid flavor, but there is very little of it compared to the quantity of worthless seed. Of the fig, however, the very reverse is true. This wholesome and palatable fruit is quite inconspicuous. It appears from the axils of the leaves, the thick stem gradually shrinking until, when fully ripe, a touch will remove it. The preserve made from the ripe fruit is one of the most delicious we have; while eaten freshly plucked from the tree, or as a dessert with cream, they are delightful. Indeed, too little attention is given to this valuable fruit. The orange in *fact* monopolizes the public mind to the great detriment of many of these smaller items.

Plums, I should have mentioned, ripen in May. They are of fine quality and bear well, the trees as yet being free from the ravages of the curculio.

The Japanese persimmon ripens in October. This comparatively new fruit is like many of our esteemed varieties a native of Japan, and bids fair to be very popular when better known.

Limes and lemons begin to come on in August. Some of the earliest varieties of the orange are to be had in October. The orange season is *par excellence* the fruit season in Florida; from October until April—and until June with some of the new late varieties—King Orange reigns supreme, while the attendant grape, citron, bitter-sweet, and sour orange supplement and round out the citrus season. The freeze of last winter was a grievous calamity, bearing heavily upon many; yet to the State at large it promises to be a blessing in disguise.

People are waking up to the fact that other agricultural pursuits are as profitable as orange growing, and already is this apparent in the largely increased acreage of the staple crops of the country not alone, but also in the impetus given to diversified agriculture as well as horticulture. The development of new resources and the application of more intelligent methods, which are becoming more and more conspicuous year by year as settlements increase, mean rapidly increasing wealth for the State and an attendant prosperity for its citizens.

RIVERSIDE, FLA., S. T. F.

THE BLENDING OF LIGHT AND SHADOW.

Together sunshine and shadow
Fall as the days go by,
Interlaced by the hand of nature
Closely for low or high.

The rare and beautiful patterns
Traced for the summer hours
By the golden warmth of moments
And brilliant hues of flowers,

Spread out for us richest, brightest,
And yet the brush of rain
Must touch and deepen the color
If freshness would remain.

Together gladness and sorrow
Fall on the human heart,
And the fairest hopes we nurture
Pain must mature in part;

For lines that have known no crosses,
No shadings to bring them out,
Can never form perfect pictures;
The angles of light about

Need the hand of a master painter
To blend for the best effects;
And our souls through joys, grief mingled,
Our Lord as His own perfects.

MRS. S. L. OBERHOLTZER.

NOTES IN SCIENCE AND INDUSTRY.

French Homeric Revelations.

—New and important discoveries have been made in the course of the excavations at the Acropolis of the Mycenæ. Portions of a building, which is supposed to be the Palace of the Atridæ, have been laid bare. Three passages lead to a court, in which there were traces of buildings of a more recent date. Behind this was a hall, in the middle of which was a hearth, the whole agreeing with the Homeric description. Near the hall were two small rooms communicating with one another. The architecture is similar to that discovered at Tiryns. Other discoveries have been made, comprising the head of a woman, of archaic art and good workmanship and preservation, several bronze statuettes and portions of vases, the coloring of which is vivid and quite uneffaced. The researches have all been carried out by the Greek Archæological Society.

Sunflowers for Fuel.—A correspondent of the *Dakota Farmer*, after having tried *turf*, coal, wood and sunflowers, has settled upon the last named as the cheapest and best fuel for treeless Dakota. He says: "I grow one acre of them every year, and have plenty of fuel for one stove the whole year round, and use some in the other stove besides. I plant them in hills the same as corn (only three seeds to the hill), and cultivate the same as corn. I cut them when the leader or top flower is ripe, let them lay on the ground two or three days. In that time I cut off all the seed-heads, which are put into an open shed with a floor in it, the same as a corn-crib. The stalks are then hauled home and packed in a common shed with a good roof on it. When cut in the right time the stalks, when dry, are as hard as oak, and make a good hot fire, while the seed-heads, with the seeds in, make a better fire than the best hard coal. The sunflower is very hard on land. The ground selected to plant on should be highly enriched with manures. In the great steppes (prairie region) in the interior of Russia and Tartary, where the winters are more severe than here in Dakota, the sunflowers are, and have been for centuries past, the only kind of fuel used."

The Late Meeting of German Naturalists and Physicians.—

The fifty-ninth meeting of the Society of German Naturalists and Physicians has recently been held at Berlin. Its fields of work were this year divided into thirty sections, of which twenty-one were more or less medical, some of the sections numbering 400 members. Professor Virchow gave the introductory address, in which he alluded to the scientific activity of the German race as a guarantee for the growth of the German nation. He spoke of the connection of the natural sciences with medicine, and of the new method of research, which, by replacing so called natural and speculative philosophy, remodeled the whole of biology and gave the basis to all scientific inquiry. He did not discuss general probabilities, but looked for the practical causes; he did not search for special organic powers, but tried to find the mechanical effect of natural causes. "Our modern transactions are characterized by the spirit of empirical but methodical investigation, the spirit of practical synthesis, the spirit of brotherly co-operation in the several branches of the wide scientific field."

Dr. W. Siemens gave an able address on our scientific age, and was followed by Professor Bardeleben, of Jena, with a paper on "Hand and Foot," in which he compared the hand with the foot on the basis of comparative anatomical and palæontological data. Professor Cohn (Breslau) read a paper on "Questions of Life" (*Lebens fragen*), which showed that the great problem is not yet solved, and that in the living organism there are forces which, though they must be mechanical, as they put bodies, yet cannot be split up into components of atomic molecular forces. "The gulf which separates life from death, organic from inorganic bodies, is not closed, and none of our hypotheses will help us to bridge this gulf." He was followed by Dr. Schweinfurth with a paper on a geographical subject, and by Professor His on the "Development of the Zoological Station at Naples, and the Growing Necessity for Scientific Central Stations." Professor Stricker (Vienna) gave a demonstration with his powerful electric micros-

cope, and showed how useful the instrument is for lecture purposes. Professor Bergmann, of Berlin, spoke of the relations of modern surgery to internal medicine, the triumph of surgery due to the antiseptic method of Lister, and the scientific development of surgery. Wounds can now be made to heal so readily that surgery has invaded the territory of medicine, and serious operations on internal organs are performed, and often also, operations merely for the purpose of diagnosis. Internal medicine, occupying itself largely with those disease germs which are brought to the organism from without, and is becoming more and more preventive.

The Development of Colonial

Races.—Writing on this subject, Professor Rudolph Virchow says: Then comes the United States, with its vigorous and constantly increasing population. However much it may be mixed, it will always be Aryan at the bottom, all the heterogeneous elements are absorbed, almost without leaving traces of themselves, in that immense hearth of colonization, which has no parallel in history. The English have been no less happy in the settlement of Australia, a colonization the energetic expansion of which has not been checked except toward the north, where the conditions grow unfavorable as the settlements approach the equator. Hence it comes that, in the northern part of Queensland, European colonists are not in a condition to endure the fatigue of agricultural labor. This fact has had much to do with the efforts made of late years to annex New Guinea and New Britain, whence it has been proposed to draw the manual forces required for the tillage of the soil. In the South African colonies the Dutch have been solidly established for some two hundred years; and, in a few countries of South America, colonies composed of peoples of various European origin have prospered, though unequally. There are also some young colonies founded by Germans on the Rio Grande, in Brazil, which a fancy still needing confirmation has placed in the rank of healthful countries and suitable for our people. Reviewing the results that have been obtained in the colonies, thus briefly enumerated, which embrace the sum of the more or less fortunate enterprises of the kind, we see that their success has been in inverse proportion to the difference in iso-

thermic latitude between them and the mother-country of the colonists. But in every case it is not probable that the organization of the colonists has escaped having to pay, at the expense of profound alterations, for acclimatization in foreign countries. Men of science, as well as tourists, have been interested for many years in the study of the Yankee type, which, according to the general opinion, is not wholly comparable either with the English or the German, or with a cross of the two with the Irish race. The peculiar physiology of the Yankee is yet to be made out, and I can not insist too strongly on the great value of the scientific results that might accrue from the study of this delicate ethnological problem. It is averred that the transformations of this type grow more pronounced as we go from the Northern to the Southern States."

Bacteria in the Air we Breathe.

—M. de Parville, a French observer, has published a paper on the presence of bacteria in the air we breathe. He says that the proportion of bacteria in a cubic meter is 6 in sea air, 1 in the air of high mountains, 60 in the principal cabin of a ship at sea, 200 in the air at the top of the Pantheon in Paris, 300 in the Rue de Rivoli of Paris, 6,000 in the Parisian sewers, 36,000 in the old Parisian houses, 40,000 in the new hospital of the Hotel Dieu of Paris, and 79,000 in the old hospital of Pitié in Paris. In Ryder street, St. James', London, a cubic meter of air contains only 240 bacteria, whereas in the Rue de Rivoli the same quantity of air contains 360. M. de Parville maintains that the superiority of London air as compared with Paris air is shown not only by the London air containing fewer bacteria, but also by the London rate of mortality being smaller. The greater purity, or less impurity, of the air of London than that of Paris, is accounted for by London being nearer to the sea, by its covering a larger extent of ground in proportion to the population, and by its houses being lower.

The Progress of Science.—The president of the British Society of Engineers, Mr. P. F. Nurse, in his recent inaugural address there, contrasted the relative conditions of human intelligence: "The facts I have brought before you also point to the moral and material progress of the world. 'The bee that hummed its busy hour through the bowers of Paradise,' wrote Sydney

Smith, 'fashioned its hexagon with the same mathematical precision which it does now and here. Six thousand years have added nothing to the sagacity of the horse or the intelligence of the dog.' But how widely different with man! He commences as a fire-worshipper, and rises to a Newton, a Faraday, a Stephenson, a Siemens. He tempts the river in a few fragments of bark lashed together with thongs of rawhide, and crosses the Atlantic in an iron steamer of 22,500 tons burden—the Great Eastern. He burrows in the earth, and then builds a city with 4,500,000 inhabitants. He sticks a dried reed in a lump of fat to light his mud hut, and carbonizes 2,200,650 tons of coal per annum to illuminate London. He takes weeks to send messages on sticks to Montezuma from the coast, and at last, reports in London the details of a battle fought in Sudan the same morning. He slays his foe with a sling and a pebble chosen from the brook, and meets the enemy with a machine gun firing six hundred rounds a minute by means of its own recoil—the Maxim gun. He lays siege to a city with a ballista throwing a fragment of rock, and finally attacks a fort with a gun weighing 110 tons, projecting a steel shell of 1,800 pounds, with a charge of 906 pounds of gunpowder. The ax head that floated for a few seconds on the Jordan three thousand years ago, when the 'iron did swim,' was a miracle indeed. These are the beginnings and endings of science, but they are the ending of science as regards the present only. They are by no means final, as science never stands still. They are but the land-marks of our times, which, as Emerson puts it, are 'trivial to the dull, tokens of noble and majestic agents to the wise; the receptacle in which the past leaves its history, the quarry out of which the genius of to-day is building up the future.' "

Drinking in Germany.—The PHRENOLOGICAL JOURNAL of October states from statistics of Dr. Baer, the fact of the increase of intemperance in Germany. I may be allowed to venture upon a suggestion as to the cause of it. Since I was not only among the carousers myself, but quitted them too, I must be able to tell a tale as well about the carousing itself as about the difficulty to resist the temptation. Madame de Stael, I think it was, who said that whoever possesses two languages owns two souls, and

antithetically we might say, that whosoever does not know but his own nation is necessarily restricted as to his cognition of the mass of curious whims man is liable to contract, and make them part of his national character.

Listening to our temperance men (and women) one would think that intemperance is a matter of quantity only. But this is a great mistake. It may be admitted that inebriety is a vice all over the world. But the way in which this vice is exercised is of a very different kind. The French most intensely enjoy a bottle; they make fine wine and the best *liqueurs* and are *connoisseurs* of both. But they do not use them except at their meals or with particular reference to them. They drink their absinthe before dinner to get an appetite, or put cognac into their coffee to help the digestion; and they drink wine with food, but not any more when dinner or supper is over. The custom to watch the removal of the tablecloth as a signal to discuss the bottle is a specially Anglo-Saxon mode of indulging the habit of intoxication.

Again, the Spaniard is so naturally averse to all intemperance that he drinks little at meals, and there for certain only half water and half wine, and very moderately, and while it hardly ever occurs that a person forfeits his social standing by any amount of love affairs, to jeopardize it by drunkenness he must frequent very low walks of life indeed. On the other hand the Scotch Laird Dumbiedieke, in Sir Walter Scott's novel "The Heart of Midlothian," has, very characteristically, when on his deathbed, no other temperance principle to impress his heir with than that he ought never in the morning to drink brandy, but always gin, because the former did not agree with man well before dinner, and on gin he would feel better. And the Irishman who awoke from a dream just when the Pope, with whom he dreamed he was, had gone for hot water for his toddy, was exceedingly sorry that he had not expressed the wish to the holy father to let him have the toddy cold, "for then he might have drunk it afore he awoke."

Of the drinking habit of the Germans one might write a whole book, and this is not a metaphor, for such books, regular carousing codes or rules set down how to get drunk, exist. The Germans are not only intemperate, but they are proud of being so.

With them drinking is idealized. The French claim that all men eat, but they alone dine. And likewise the Germans claim that all nations drink, but they alone carouse, or do it elegantly. A temperance movement against the consumption of ordinary distilled spirits would find favor in their eyes, but one directed against beer and wine would be a lost cause on the outset; it would lack the moral support of the so called better class of society.

I do not contend, however, that there never will come a time when a temperance movement in Germany will not be crowned with success. But it can never be managed as it is done in this country by simply applying to the better nature in man. The true national German denies that intemperance and his better nature are at variance. To be dead-drunk the German considers indecent. But he does not condemn it as a parson, without looking into the matter, but like a judge, after examination on the principle *audiatur et altera pars*, or "listen to what the other one says," and if he finds the case stands thus, that the drunkenness occurred because there were some friends together, the culprit will come off cheap.

A movement against intemperance in Germany will hardly ever attain a sensible victory, unless it first accomplish the overthrow of the two powerful allies of all merry carousing, music and poetry, or at least a reform of these. As long as Apollo and Bacchus are hand and glove, with even Minerva working at it, a temperance movement after the style which is practiced here will never find a substantial support among either high or low, and the more earnestly it would proceed in its work, the more serious would be its danger of being turned into ridicule.

A German discusses the bottle because a friend calls, and he does it because one goes away. He drinks when he is merry, because he is merry, and he drinks when he is sad, because he is sad. He drinks because the cradle gets a new inhabitant, and he drinks because a grave has to be filled up. He drinks at a wedding, and he drinks—at every occurrence which in any way can offer a pretext to do so; and last but not least, he drinks when—he has nothing else to do, and his national treasure of music and poetry offers him for all these special occasions appropriate rhymes and melodies to attend his carousing.

This propensity is so deep-rooted as a national feature, and so little questioned, that it is most intimately linked to its very intellectuality, and overawes as an expression of public opinion all adversaries who venture to raise their opposition.

The most energetic stronghold of the intemperance peculiar to Germany are the German universities. Here the beer-rite forms a part, and not the smallest one, of the study of the future leaders of the nation, and total abstinence is so totally out of question that the very professors sneer at a student who prefers milk to the malt ferment of Gambrinus. Occasionally at the celebration of some anniversary the professors descend from their pulpits, and join with their pupils, till teachers and scholars find themselves so gloriously muddled and so mixed up as not to know who sits on the pulpit, and who sits on the bench, and glorify themselves for this temporary realization of transcendental humanity, where the unidentified individual is lost in the infinity of spirit. They call such a carouse a *grand commersh*,* and the Crown Prince, Germany's royal and imperial highness, does not consider it below his dignity to accept an invitation to such a *commersh*.

The late Prussian minister of Public Worship, D.D. Ph. D. M.D., v. Muhler is the author of one of the most renowned and most popular drinking carols,† which exist in the German language, although their number is legion.

To bring about a reform of such a state of mind, the reader will readily admit, it takes stronger arguments than the commonplace *façon de parler* of our temperance orators, and this holds good even as to the lower classes, who always imitate the higher and educated, and will, when spending their evenings in the beer garden, persuade themselves that it is not the beer but the music that they go for.

I am such a staunch believer in total abstinence that I admit the acme of poetry and prose only in vegetarianism, and I claim that nowhere more than in the language of the Germans are there found models of sobriety, poets who abhor gambling, beer-cards and copper-nosed wine-bibbers, brawls and gutter friendships. Read "Die Glocke," by a certain Friedrich Schiller,

* With the accent on the second syllable.

† *Gera'd aus dem Wirthshaus Komm ich heraus.*

and "Herman and Dorothea," by a certain Wolfgang Goethe, two poets whose names are not quite obscure, and they will discover that the most homespun object can be made glorious.

C. F. A. LINDORME, PH. D.

The Winter Storage of Apples.

—One of the easiest and most rapid profits that a horticulturist and farmer can take advantage of, is in the proper storage of the apple crop. The October and November prices of good winter-keepers are seldom more than one-third to one-half what the same fruit commands in the latter part of winter and early spring, so that a moderate amount of shrinkage from rotting, etc., may easily be met in the largely increased profit of late selling. In earlier times, when there was a greater lack of cellar room, quantities of apples were preserved for the spring market by simply burying them in the orchards where grown, in conical heaps, first placing straw over the heaps, then enough earth to prevent freezing. And even at the present time, some of the choicest apples that reach our late spring market are preserved in this well-known manner. Simply a modification of this old and well-tried process is the method that I make the heading of this article. Down a hill-side, a V-shaped excavation is made, which may be several feet deep and eight or more feet wide, and in the bottom, extending its full length a trough is placed, made of a board one foot wide for bottom, and boards eight inches wide for the sides, with a tile drain immediately below. This trough, extending up the full length and in the bottom of the excavation, is covered with slats one or two inches wide, nailed across not over one inch apart. The sloping sides are then covered with rye straw, and apples by the wagon-loads are placed therein. Cover them with straw and earth from above to prevent frost from reaching them, as is done in the old way of burying fruits. The trough below gives a circulation of cold air through all the apples stored above it, and ends in a draft chimney at the upper end. In the very coldest weather, the mouth at the lower end of the excavation may be closed; though while the thermometer remains twelve or fifteen degrees above zero, it has proved an advantage to let the cold air circulate through. But in warm weather it is an advantage to keep the draft closed, thus retaining the

cold that is already there. This simple and inexpensive arrangement has preserved apples until very late in the spring, with scarcely any loss, and they came out for market, bright, crisp, and fresh, with no appreciable loss of flavor.—*Prairie Farmer*.

Winter Churning.—We are often asked the question by sufferers why in winter we are often obliged to spend half or a whole day in churning cream before it will turn to butter? Is it owing to improper temperature when churning is begun, or to improper attention to cream when rising? and a variety of other pertinent questions. To churn and have good butter it is necessary that we should have an intimate knowledge of the chemical laws governing the operation as well as our own theories with reference to the matter. If our theories are based on a practically demonstrated scientific fact we shall never be obliged to ask for information upon a subject so simple, as many think, as that of churning. Temperature has much to do with butter making, this is a fact universally conceded, but *why* is a question comparatively few understand. That portion of the cream which forms the butter, exists in the milk or cream in minute globules, coated or held together by the caseine or cheesy matter. To enable these to separate a certain degree of sourness is essential, which forms lactic acid (acid of milk) partially dissolving or separating the caseine or cheese, and setting free the particles of butter which are brought together by the agitation, and adhere when the butter is said to have "come." To induce this chemical action cream must be of a temperature of from 58 to 60 degrees; and if very much colder than this long churning in a warm room may be necessary to induce a temperature that will form the lactic acid and bring butter. Injudicious handling of milk in cold weather often injures cream, and renders it bitter and unfit for use, not only unfit but positively injurious as an article of diet. To remedy this, warm the milk by setting on the stove or over hot water in shallow pans, that the cream may rise in the least possible time, and then, though the quantity be small, churn often, and much of the difficulty in butter making in winter will be obviated. Had we the time and space at our disposal we would give in detail the chemical exegesis of this matter.

J. F. E.

THE SINGULAR CASE OF MR. NATHAN BROWN.

THIS case which is well described in the June number (1886) of the PHRENOLOGICAL JOURNAL has aroused my interest because Mr. Brown's family and neighbors were inclined to believe that he was a victim of "witchcraft;" while to one who has long and perseveringly studied the causes, history, and possibility of cure of various brain diseases, the reasons for his peculiar conduct become at once apparent. It is probable that the afflicted man could have been entirely cured, perhaps even speedily—as he had youth in his favor—for as he grew older he gained greater control over himself. A clear understanding of his case and its right mode of treatment is greatly needed by many who, without knowing the cause, already perceive in themselves a tendency to erratic action of either body or mind, or both, and who are still able by their personal efforts to recover those powers which are now being weakened.

We are told of Mr. Nathan Brown that "he followed the sea from early life—was uncommonly bright and active as a child, and bid fair to become a useful man. He was taken prisoner during the French war in 1755 and was confined in a prison ship at some port in the West Indies where he was brought into great straits for food and the common comforts of life."

Try to imagine his condition—a bright sailor boy, already a sea-cooper, now held a prisoner in port under the burning tropical sun, unable to procure nourishing food or even enough to eat of the worst sort, no other comforts of any kind, obliged to labor hard while suffering thus; raging mentally in forced silence over the brutal cruelties practiced upon him; full of anguish and heavy with sorrow at thoughts of home and dear friends whom he was likely never to see again—his whole system weakened by these tortures—it is evident that some day, either by a sudden accession of intense emotion or by the peculiar effect of the burning sun, a congestion of blood in the upper brain took place, undoubtedly in the region of the will power, where a fibrinous clot must have formed, through which he could only by repeated and strenuous efforts finally

succeed in conveying his intention to the nervous ganglia by which his muscles were made to act.

The proof of this appears by his conduct after returning home; he was then twenty-one years of age. He would make repeated efforts to dress himself, beginning and stopping, then trying again and again until at last he succeeded—but often he did *not* succeed until *the going down of the sun*. (In a similar case known to be induced by a sun-stroke, the patient was utterly unable to do anything during the daytime, while at night he was quite well and rational. He recovered full bodily health and almost his former mental strength by engaging in night work and sleeping all day in a darkened room, at the same time pursuing a prescribed course of diet, etc. After three years he was able to be out of doors in daylight, but avoided the light and heat of noon-day; fifteen years have passed and he has had no relapse and is still earning his own living.)

Mr. Brown also found difficulty in going straight on when walking in the street in extreme weather of any kind; he would appear to come to an imaginary obstacle and would stop, make violent efforts to go on and finally succeed. This perseverance proves that only a portion of his brain was affected, especially since when talking his ideas were clear and good and he often talked well when not suffering from attacks of his infirmity, but at such times he would repeat the beginning of a sentence over and over frequently before he could go on to the end.

"One other peculiarity was his aversion to stepping on a painted floor, particularly if the color was *yellow*." I have observed in three cases of partial sunstroke an aversion to anything of a bright yellow color—but have not space here to describe the interesting apparent cause of this.

Through the loving-kindness and forbearance of friends, through comfortable habits of life, and through regular occupation Mr. Brown finally got much more control of himself and lived to a happy old age; but the fear of "witchcraft" and his belief that he was a victim undoubtedly hindered his cure. Having no more space I can not now speak of the treatment which such a patient requires and which in many instances would completely restore the normal action of the brain.

ELIZABETH DUDLEY, M. D.



MORTMAIN.

A WRITER in *Harper's Bazar* points to the responsibilities of parentage in the following intelligent manner :

If we could dispose of our personal peculiarities by will, as of our personal property, what a very different state of affairs from the present we should have about us ! And how quite to the fancy could we make the world in the next generation, if it were possible for us to indite important documents regulating the affairs of society after our demise much more thoroughly and minutely than we do now—after, let us say, the following fashion :

“I, So-and-so, being of sound mind and body at this writing, do now make this my last will and testament. And I hereby give and bequeath, to my daughter Margaret all my right and title in the pale pink of my complexion, and to the said Margaret I also give the high carriage of my head ; and to my second daughter Louise, I give and bequeath my low forehead, the straight outline of my nose, my pensiveness, and the mole on my left cheek ; and to my daughter Rachel, I give the brown of my eyes and the length of my eyelashes, and to the aforesaid Rachel I give also the old charity I inherited from my grandmother, but never used. I do also give and bequeath to my son Lawrence, my upper

lip, as well as my indolence, my high temper, and my selfishness, and I commend him particularly to the care of his sisters ; and I give and bequeath to his little daughter Jane, together with the arch of my eyebrows, my emotional insanity, and all that belongs to the said emotional insanity ; and if my granddaughter, the said Jane, does not survive me, or dies without issue, then I desire the said emotional insanity, together with my kleptomania, my love of scandal, and my brow-beating of dependents, to be committed to the flames ; and I further wish, in any event, that my salt-rheum and scrofula shall be tied up in a parcel and buried in the same grave with me.”

In this way—or, better yet, by cutting off the son Lawrence with a shilling, and leaving the little Jane unprovided for—we should be sure that none of our best things went amiss or astray, that beauty was perpetuated and given to the one that could make the best use of it, that blemishes should be doled out to those whose ill-behavior had deserved no better, and that ruinous and deadly qualities should be destroyed.

But, as it is, and strange and unaccountable as it is, while beauty of the body is or is not transmissible, and there is no law for that dark point yet known, moral beauty is almost as sure to tell in

the descendant as moral ugliness. We may dye black our flaming red hair for long years before our daughter Margaret is born, but unless the more vital current of some stronger ancestor in her veins overcomes it, Margaret is pretty sure to have red hair in spite of our dye; yet, on the other hand, if we wash white the stains upon our soul of selfishness and falsehood before her time, Margaret is very sure to inherit a soul as white as the washing has made our own.

When one reflects on this last statement, it will be felt that, after all, certain things, of which we had not dreamed, are to be disposed of by will, and that our power over them is such that we can transmit them or destroy them, let the heir have them with interest, or completely disinherit him. Have we a virtue that is distinctly our own and not an accident, or have we even an accidental virtue? The fostering of that virtue, if it be an accident, will make it our own, and will make it not only an increased and accumulated thing in itself, but will really make it ten other virtues. And it must be great poverty in this peculiar thing, great negation of the trait, not to say absolute badness, that the heir receives from the devisor on the other side, to make that virtue of no account in the inheritance. And if we have a sin, constant repression of it may so diminish it, as a bad debt is diminished, that it may cease to exist before the heir comes in question, or may be so insignificant that it amounts to nothing when he does come into his own.

Who that remembers this, and the infinite peace and beauty that virtues will give, and the infinite misery and woe that sins, swollen as they go on from one to another, can not but create—the covetousness that in a grandchild becomes theft, and the jealousy and suspicion that sow the seeds of madness, the ill-temper that one day thrusts out the red hand of the murderer—can, on recognizing them, do anything but crush and tread the terrible traits out of existence? Some one

has said that there are few more sad or solemn moments in life, more sad and solemn for the brightness in which their gloom is set, than that of the young mother who, after the first rapture of safe possession of her child is past, reflects that what she is her child is, at least so far as her accountability goes, and lies helplessly to see her faults and follies flaunt themselves in her face; she may believe in a saving grace, but she sees that the child will have need to take hold of that grace by main strength if he would escape the evil she herself, who loves him as her life, may have wrought in him; she atones in that hour for years of error, and she watches in the after years, with many a shudder, for the first appearance of the ugly heads of the evil things she saw in that dark hour, as a hunter watches for his prey. It would have been easier to stamp out those evil things at first in herself, had she bethought herself in season, and known the way.

Words are easy, it is true, and deeds are difficult. But the woman who rides her horse to the top of a mountain because other women have done it, can usually do all this on the same principle, because other women have done it. For the calendar of saints would overflow; and fill cycles instead of months, if the list of those who have fought and have overcome their special sins could be given. Even when those special sins have been inherited, we all have an ally in our own identity, which, well used, is able to conquer the wicked ancestors, if such we have, who cared nothing for us, and indulged themselves, let what would be our fate. They drank, it may be, and clogged their brains with hot blood, and bequeathed us paralysis; they sinned against all laws, and gave us scrofula; they restrained themselves in nothing, and left us a parcel of evil passions riding us like monsters. It is in the light of their selfishness that we begin to undo their work. They gave no thought to those that were to come after them;

we will do the very opposite ; and for the sake of those to be born of our own root and for the sake of the perfection on earth, as far as that may come to pass, of the great future race, we will bring the evil inheritance to naught. And if,

whether or no, we must still rule the world by mortmain, the hand reaching out of our graves shall be that of no disgusting decay, but a hand pure and white as those of the spirits of the blest.

DIPHTHERIA.

IN this terrible malady we have a disease that was known to the ancients and given its name, from two Greek words, because of the secondary or false membrane that characterizes it. Its origin is ascribed to Egypt, whence it spread as a plague to the countries of Europe bordering on the Mediterranean, everywhere carrying dismay because of its deadly nature. Allied to croup, and by many eminent physicians regarded as identical with that disease, diphtheria is most fatal in the nursery ; even scarlet fever does not show a larger percentage of deaths in proportion to the number of cases.

The causes of diphtheria are of zymotic or fermentive nature, the inflammation that appears in the throat being started by malignant germs floating in the air, which being drawn into the mouth with the inspired air find their way into the body, poison the blood and set up destructive inflammation in the mucous membrane. The specific exudation of diphtheria may appear in the eyes, or intestines as well as the throat, and wherever the cuticle is thin and well supplied with blood vessels

The disease is one of blood poison, therefore constitutional, and its invasion of the throat is but a symptom ; the membranous patches may disappear without a patient's recovery ; and after convalescence some bad effects may be left, as paralysis, or affections of the eye or ear.

The exact nature of the germ that produces the disease has not yet been ascertained, but the condition that favor the existence of the germ are found in low

damp places, filthy accumulations, dark unventilated rooms, imperfect drainage, sewer gas, careless habits of dress and eating, and a low state of the bodily functions. Houses heated by furnaces are a favorite haunt of the disease. Hot air from the flues may contain poisonous emanations that have developed in the darkness and moisture of the cellar.

We are of opinion that a susceptible condition must exist in a person before he can be infected, and that this susceptibility is nothing short of serious systemic derangement in itself. Most cases of diphtheria that have come to our knowledge as sudden attacks and unaccountable have on examination developed the fact that for some time previously the individuals had been " out of sorts," constipated, " bilious," or otherwise functionally disturbed had done nothing for themselves: indulging the hope that they would soon get over the trouble.

The manifest symptoms are sore throat, a feeling of languor and exhaustion, the throat hot and dry, with swelling of the parotid glands—those that lie back of the jaw, difficulty in swallowing, a bad breath, quick pulse, headache, especially over the eyes, and a thick, tenacious deposit of yellowish substance in the throat passages. These indications may appear suddenly, especially in children ; and here, we would repeat, for prevention sake, what has been said in our reflections on croup, with reference to watching children, so that when they complain of their throat " hurting," it should be examined carefully, and any signs of disorder, redness and swelling be at once taken

as a sufficient reason for active remedial measures.

Many children are in a hopeless condition with this disease even before their parents think them sick. When a child appears dull, languid, slightly feverish and drowsy, and complains of pain in the ear and uneasiness about the throat, or manifests the slightest difficulty in swallowing, let the throat be examined carefully on the inside, and if the parent or nurse observes the tonsils to be red and swollen, with yellowish patches here and there about the throat, they may conclude that the child is in more or less danger from the terrible and rapid consequences of diphtheria and should at once give it all the care that experience can suggest.

In grown persons a striking symptom, associated with the bodily debility, is the depression of the mind, a lethargic state being apparent to his friends although the functions of the nervous system and the action of the brain are really not impaired; intellection strong and rational usually remains until within a few moments of death. Where we find mental aberration, it results from reflex impressions received through the peripheral nerves that modify the intellectual.

Treatment—For true diphtheria there is no positive remedy, but the principles that should be kept in view in dealing with a case are :

1. To neutralize the poison.
2. To reduce the fever.
3. To regulate the bowels.

For the first antiseptic agents are necessary; for the second and third hygienic measures are best; these aid toward rendering the antiseptic effectual and destroying the false membrane.

The bowels should be cleansed by warm water enema, if there have been any irregularity up to the time of the attack. Next a full hot bath, the temperature at first 98° or 100° and gradually raised to 105°; while this is administered the head should be kept cool with very cold water or ice wrapped in

cloths. After the patient has been kept in the bath from six or seven minutes to twelve, according to his strength, it should be cooled down to 95°, and then the patient taken out and quickly dried by enveloping him in a warm sheet or large towel and briskly rubbing with the hands. Having wrapped him in a loose gown he should be placed in bed and covered warmly with blankets. Now apply hot bricks, bags or jugs of hot water to the feet and limbs, and ice to the throat. This last is accomplished by putting from a pint to a quart of pounded ice in a bladder of thin rubber or an oil-silk bag. If ice is not to be had, then use linen compresses wet in the coldest water obtainable, instead. The ice is much better, however, in all severe cases, and if applied in the manner stated the clothing and bed linen are kept dry, which can not so well be done when water is used.

The wet compresses must be changed every five minutes, or oftener if they become warm rapidly.

A western physician reports good success in using a mixture of cold water, and vinegar in equal parts with a little table salt, for wetting the bandages. If the patient is not an infant, give him small pieces of ice to hold well back in the throat; most of the melted water should be rejected; although a little of this may occasionally be swallowed it is not best to reduce the temperature of the stomach below the normal standard.

Continue the application of the ice or cold water thirty to sixty minutes, and then apply hot fomentations to the throat for fifteen minutes. To do this, take a piece of old, soft flannel, about two feet square, and fold it several times, so that it will cover the throat well and upper bronchial passages—if the inflammation extends so low; set a bucket of boiling water in a tub, and after wetting the folded flannel in the water, wring it by hand, using cold wet towels to protect the hands, and while hot apply to the throat and upper chest or as soon as

the patient can bear it without being burned.

Immediately upon applying it cover with a dry flannel, and over that wrap the bed blankets to aid in retaining the heat. Renew the fomentation every five minutes, by having a duplicate ready to apply at once upon removing the other; if no duplicate is at hand cover the parts with the dry flannel while the compress is again being prepared. Three fomentations having been applied thus the parts should be sponged off with cool water and dried, and another application of the ice-bag or cold compress be made as before. Meanwhile the hot applications to the feet should not be forgotten, to keep them warm.

This alternate application of cold and heat has been found by hygienists more effective than the simple treatment with either cold or heat alone in checking the formation of false membrane, and producing a physiological reaction.

The great fatality of this disease among small children is in no small degree due to the difficulty in reaching the throat promptly, and this is one reason for the use of antiseptic or absorbent solutions, sprays and detergent vapors. The procedure of scrubbing or scraping the throat with astringents should be relegated to the days of barbarism. It is, we are glad to say, condemned by physicians who knew what diphtheria is. Dr. J. H. Johnson of Washington thinks that equal parts of potassic chlorate and potassic iodide mixed with cold water form a preparation that is suitable for children. A little of this given at intervals are as likely as any other drugs known to stay the destructive progress of the disease. The taste of the mixture being pleasant and cooling a little child will not refuse it, whereas attempts to blow sulphur into the back parts of the throat or using a carbolic spray, are met with so much resistance in almost every instance as to do more constitutional harm than good. It were better to try

electricity, but in this an experienced operator is needed.

The room in which the patient is should be well ventilated and kept at a temperature of about 70°. Every means should be used to purify the atmosphere for the sick one's sake and others who are caring for him.

Solutions of the sulphate of iron or some other disinfectant should be kept in all the vessels that are brought into the sick room to receive the discharges, the soiled clothing, refuse food, etc.

The patient and nurse should be the *only* occupants of the room; all others should be refused admittance; the more nearly this is adhered to the better for the patient. If the nurse lie down, it should not be upon or in the bed occupied by the sick person.

The food administered should be nutritious but very moderate in quantity. While the inflammation continues it were better to give none, after that a little fruit juice, or pear pulp, or well-cooked apple-sauce will be grateful to the sick one; then small quantities of fresh, cold milk, thin wheat or oat gruel. While the fever lasts nothing of a solid character should be taken, as the stomach can not digest any but the most simple food at such times, and instead of strengthening the patient, any other sort is sure to retard recovery, if it does not cause a relapse.

H. S. D.

PERIOD OF INFECTION.—The duration of the infectious stage of various diseases is thus: Measles from the second day of the disease, for three weeks; small-pox from the first day, for four weeks; scarlet fever from the fourth day, for seven weeks; mumps from the second day, for three weeks; diphtheria from the first day, for three weeks. The incubation periods, or intervals between exposure and the first symptoms, are as follows: Whooping cough, fourteen days; mumps, eighteen days; measles, ten days; small-pox, twelve days; scarlet fever, three days; diphtheria, fourteen days.

WHY SHE DIED.

A SKETCH FOR GIRLS TO READ.

WHY does the white-haired grandfather weep? It is old age that can not check the unavailing tears for the death of youth and beauty. She will place her arms around his neck and kiss his withered cheek never again. Hush! tread softly lass, holy eyes are watching. Speak low, bright forms bend to listen. The angels sent for her, are even now hovering near on unseen, noiseless wings. A few more broken breaths and her spirit shall be borne amid Seraph songs, thro' the blue vault of Heaven to God's throne. Fond husband, if from those loving eyes you have turned scornfully away, if you have wounded that gentle heart, if you have been deaf alike to her wishes and counsel, ask her forgiveness now, else your fond glance, and affectionate hand clasp will never more meet with response. Smooth the pillow, look into her bonnie eyes for the last time. They will glow and sparkle never again. Brush back the curling tresses from her damp forehead, and bring her little child to kiss her pale lips farewell. Kneel by the bed-side, bow in submission to an all-wise Providence, and feel that it is a just chastisement, and that it is God's will for her to go. It is all over! Her smile will brighten her sweet little home no more; her kind hands will never again be outstretched to husband and sister and child, at her door. She has entered the Heavenly portals and waits for you there. Quiet her little laddie with his new tin-horse and stand him by the window. The rain is pattering down like the sad tears from his young eyes. Poor little Davey! They have told him that mamma has gone to Heaven, but he does not understand. Though he is four, the word has no meaning to him. He only knows she can not talk to him. Motherless! With what mournful cadence his pitiful sob

falls upon our ears, while from our hearts goes up a fervent prayer. Ah! it is hard, hard to be reconciled to the death of one so young. The aged grandfather whispers in his heart, "She might have been useful, she had much to enjoy, oh, why was she taken and I left?" Lay her frail body in the ground. Think of her soul in the shining courts on high. Desolate here! Dreary! Ah, we shall go to meet her ere long and never be separated from her again. Kind husband, Jennie whose image filled your glowing heart with love, dwells forever more where sorrow and suffering are unknown.

* * * * *

At the risk of being called unfeeling, and facing the probability of being pronounced heterodox, I solemnly declare, although the foregoing may be all very pretty, it is for the most part consummate twaddle, and quite too intensely and *morbidly sentimental* for anything.

Why did our fair young friend fade and die in the early morn of life? Well, for the last year she has not been able to eat any thing but tea and bread, and a small bit of ham semi-occasionally. You know the girls all learned to eat awfully fast at the Seminary. They were allowed only ten minutes for breakfast, and she never got over the effects of it, poor thing, it just broke her up.

"Yes, I remember, she could eat three hot rolls while I ate one, and—Why aunty is that you?"

"Yas' missy, an' I used for to tell Miss Jennie dat she eat entyly too fas' fer her vittles to suggest good, but miss, it 'peared like she could'nt holp it, poor Miss Jennie."

"Look at these elegantly embroidered lambrequins, and that table scarf—isn't it exquisite? Day after day she toiled with weary fingers to finish them,—and that crocheted bed-spread—a marvel of

beauty—how did she ever find the time for it, and did you notice that lovely pattern of knitted lace on Davey's petticoats? How did she find time? Why her mother said she must have another servant for this year, she was not able to attend to much housekeeping, and of course with three servants she had time to devote to pretty things. She was a splendid housekeeper, but could not bear to take much exercise."

"Well, I should think not, neither would any one else who wore such high heels as she did; it makes my very soul sick; there is a pair of her little shoes in the corner."

"Oh yes, they are rather high heels, she was always so neat, you know, and her husband had a fancy for her to wear pretty shoes too."

"I wonder if he had a fancy for hearing her complain of backache, to say nothing of paying those doctor's bills, having the extra servant, and buying all those tonics and bitters, and having her lie down and die!"

"Surely you don't think the heels injured her health?"

"I don't think anything about it, I *know* it, and Bell just come here to the top drawer and I will show you something else that helped to kill her!"

"That bustle, yes it is rather thick and heavy, it is stuffed with the shavings that come around glass and china. I have one myself; it never gets out of order; and see, this has the false hips, too, how nice! Jennie would keep up with the styles, and look nice every day. Surely, Patty, that was right, and then this sort of bustle keeps your dress from weighing so heavy on your back."

"I can't see *how*, friend; the bustle itself is only an additional burden, and just think how *warm* it is, why it would kill a man! Child, the gin-and-whiskey factory has many sins to account for, but the corset-and-bustle factory exceeds it. One slays its thousands and the other its tens of thousands."

"Patty, you ought to be ashamed to

talk so. *She* never wore her corset tight."

"*Of course not!* No woman ever did, and few men will acknowledge that they were *slightly* under the influence of whisky."

"Well, even if she did lace a little, that couldn't have killed her."

"It helped, and if you want to know exactly how, I will tell you, but not now."

"Don't you remember that until women studied medicine and became practicing physicians it was commonly believed that there were two types of breathing, rather that we breathed differently from men? It is quite a joke, and as long as men admire small waists, why the majority of people will continue to credit this mistake. Bell, the corset is an insult to our Creator, and I do think that if paintings and statues of perfect form will give women a correct idea of a good figure we ought to have more of them in our houses and spend less money on embroidery silk, yarns and wax. Bell, there is such a thing as too much civilization."

"The doctors pronounced it typhoid pneumonia, didn't they? Just to think that getting one foot wet brought on such a cold and fever! Patty, isn't it dreadful?"

"Lord! yas, poor chile, she did. She was erbleedst to slep on that goose feather bade ever sence she was fust taken poorly like. Ef it hadn't er ben fer dese yer she'd er died long 'go. Bimeby w'en she got so drefful sick wid de mis'ry in de back, 'peared like she couldn't sleep none without she got two feather bades un'neath of her."

"When were these feather beds made, aunty? Old Mrs. Clifford made them for Jennie's father, didn't she?"

"Yes'm she did; dish yer bade done ben in de fambly ever sence way back yonder, long and long fore de 'mancipation ever was thunk 'bout. Marse Sam was a young man gwine to college when ole mis made dish yer one, an you

know how ole he done got 'fore he died.

"But dish yere nuther one on top, poor ole Miss Susan she made, fore Barney's war *dey say*. Yes'm dey do, and de Lord knows when dat was. Yes'm, dese yer bades done been in all we white peoples fambly longer than I can tell you. Yes'm."

"Patty, you look as though you had something to say against feather beds now, what is it?"

"I have; but I shall reserve it for another time. Only this, if you will be so old-fashioned as to sleep on one, do for my sake, if you would live long and see good days, have one *under* seventy years of age. Draw the line at seventy."

"Pshaw, Patty, these things didn't hurt Jennie, she was sick first. You know she could only drink tea, and eat a little cake and things like that."

"Oh yes, she could! She kept French candy in her work box *all* the time, and I firmly believe there was death in every cup of tea she drank. Don't tell me about these sloppers!"

"Her mother drinks it,"

"Yes, but she began at thirty, and Jennie at eleven. Besides, it makes her mother dyspeptic and fretful; but I shall not be the one to tell her so."

"Miss Jennie, she set a heap er store by her bades, she did. She always had her own bade made up high and slick 'fore she was dressed for breakfus, an de piller-shams, whats ruffled an tucked, all set up. She was just nattally dat neat an perticler."

(Neat and particular, and sleeping on a seventy-year-old feather bed all the year round, and giving it a sunning twice perhaps in that time!!)

I walked down stairs, and through the dining-room where tediously made mats and dainty doylies lay on the table, and where more embroidered lambrequins ornamented windows and mantel. The curtains were long and trimmed with hand-made lace. I paused to regard a handsome cushion.

"Oh, my sweet friend," I thought, "for crocheted lace you declined God's blessed sunshine and fresh air. For braided pillow-shams you were willing to forego the pleasure and benefits of walks out of doors. You lived in the country without knowing what country life was. For a painted, plush tidy you offended your whole nature by neglecting to read good books. For a Japanese table scarf you sold your birthright to health and long life. For that Afghan covered with deformed horses and lame dogs you made your child an orphan.

Is it God's fault if a human being plunges into the waters excluding the air until life is extinct? Is it the just chastisement of an all-seeing Father that your life is ended? A thousand times No, and more yet. These millions of fancy stitches betray to the world how you neglected to improve your time by cultivating your mind. You are as criminal as she who idles her time away with cards, and silly novels, and dancing and flirting."

I went out on the back porch and watched the clouds.

The three doctors said that "nothing could save her."

Why certainly not, she had spent five years laying a good foundation for sickness. The manner in which she ate, dressed, lived, slept and worked made her an easy prey for disease and death. The parson prayed fervently and faithfully for her restoration, but that could not save her either. Nature's laws, which are God's, had been broken. What could prayers avail *here* more than in any other case of suicide?

Some might not call it suicide, but state it mildly as "over work," and say that this account is embellished by the imagination. Well, I know that the case is *not* overdrawn, but as all things, like music, have an ascending and a descending scale, perhaps my tune *is* in the upper keys. Here is Aunt Nancy again.

"Missy, I gwine ter i'nin now. Day fore yistiddy, poor Miss Jennie, she

took'n hilt both little white han's out to me, shedid, an she say 'Mammy, I want you fer ter do up Davey's pekay suit, an be perticler wid de braid,' she say. Den' she lay my han on her forrard, like twas such a misery in her hade, an she say 'Mammy, don't let in de sun, roll up de poller blinds, it fades de kyarpet, it do,' she say, an' dat was de las' word she spoken to me. Lord have mercy on us all! She is don dade an' gone, an' poor, little man is a motherless orphant. Missy, dish yer long white ap'on, what you got on, certney is perty. I wish to de Lord I had one like it, I hates a baigger I do, an' you dun always been so commodatin, pears like I'd be *shamed* to arsk you for it?"

"Why, certainly, aunty, if you like this apron you shall have it; here it is, you are very welcome."

"Lord bless your soul, Miss Patty, I

always did say Miss Patty was a lady! I wishes you all de good luck, I does, and a rich young gentermun for a husband. I'se same as white people in dish yer ap'on. Trimmin' too! Lord bless you. Thanky, mss!"

Reader, it is better to own and understand and use the physiological works written by the women physicians of the United States of America than to have all the doses, and the drugs, and the doctors in the universe. And although I do not wish to give the impression that I undervalue the efficacy of prayer, I do not hesitate to say that it is better a thousand times to have the knowledge contained in these books, and good common sense, than to have the prayers that all the priests and bishops throughout Christendom, on bended knees, could offer up.

PATTY SPARKLE.

FOOD FOR COLD WEATHER.

THE daily supply of carbon required by an adult man to keep up the heat of the body and supply proper muscular power is stated by scientific authorities to be 4,900 grains. This quantity is furnished by the following quantities of the specified foods, expressed in pounds (1 lb. = 16oz.):—

	lb.		lb.
Oil (oil, etc.).....	0·10	Lentils.....	1·13
Butter.....	0·11	Maize.....	1·13
Mutton.....	1·3	Wheaten flour.....	1·13
Bacon.....	1·0	Gloustersh'e cheese	1·13
Scotch oatmeal....	1·9	Figs.....	2·1
Walnut kernels....	1·8	Wheaten flour.....	2·8
Rice.....	1·11	Eggs (41).....	5·3
Peas.....	1·10	Lean of beef.....	6·6
Haricots.....	1·13		

Though oil and fat are of the greatest value as heat producers, they can only replace the starch, sugar, etc., to a limited extent without causing derangement of the digestive functions. Among vegetable products nuts, maize, and oatmeal are particularly rich in oil.

The following table shows the respective amount of heat-producing matters contained in the several foods. As fat has a greater heat-producing power, it is

increased to the equivalent of starch and sugar. The figures given are therefore larger than the actual quantity of fats contained in the foods named. Fat mutton contains most fat of all the articles named, and this quantity being taken as the standard, the amount contained in the others is represented by fractions:

Fat mutton.....	1·000	Maize.....	·765
Oatmeal.....	·905	Hominy.....	·765
Fat beef.....	·812	Wheatmeal bread.	·703
Rice.....	·843	Figs.....	·687
Walnuts.....	·875	Dates (free from	
Arrowroot.....	·812	stones).....	·687
Tapioca.....	·812	Haricots, peas and	
Sago.....	·812	lentils.....	·593
Pearl Barley.....	·812	Herring.....	·187

The following table shows in ounces the heat-producing matters contained in 1 lb. of the several foods:—

	Oz.		Oz.
Arrowroot.....	13	Dates (without	
Tapioca.....	13	stones).....	11
Sago.....	10	Haricot beans.....	8½
Rice.....	13	Peas.....	8½
Oatmeal.....	12	Lentils.....	8½
Wheatmeal bread..	11	Walnuts.....	6½
Maize or Indian corn	11	Mutton.....	6
Hominy.....	11	Fat beef.....	5
Barley.....	11	Herring.....	1
Figs.....	11	Fowl (lean).....	0

FLESH-FORMING FOODS.

This table shows in ounces the flesh-forming matter contained in 1 lb. of the several foods :—

	Oz.		Oz.
Cheese.....	5	Barley.....	2
Haricot beans.....	3¾	Rye.....	2
Lentils.....	3¾	Walnuts.....	2
Peas.....	3¾	Fat mutton.....	2
Oatmeal.....	2½	Herring.....	1½
Fat beef.....	2½	Bacon.....	1¼
Wheatmeal bread..	1¼		

The following table shows the quantity of the several foods that has to be eaten in order to obtain 1 lb. of flesh-forming matter :—

	lb.		lb.
Cheese, Gl'stershire	3¼	Walnut kernels....	8
Haricots, lentils, and peas.....	4	Wheatmeal bread..	9½
Scotch oatmeal....	6¼	Bacon.....	12½
Wheatmeal.....	7	Rice.....	12½
Beef.....	7	Dates (freed from stones).....	15
Eggs (57).....	7	Figs.....	16
Maize.....	8	Potatoes.....	55

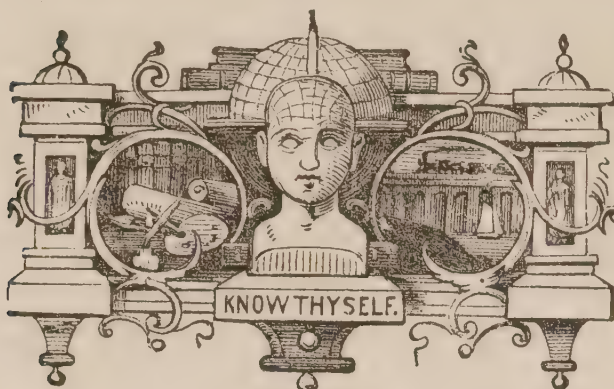
NOTE.—From these tables it is seen that a vegetable diet supplies a larger proportion of the elements essential to nutrition than a flesh diet ; while the cost of the former is far less than that of the latter. Cheese and butter being manufactures that, essentially modify the character of the original article, milk, should not be compared with such things as beans, peas, wheatmeal, corn, barley, etc., as the latter are substantially natural products.

PLASTERS AND SALVES.—Most of the plasters and salves, as usually applied to wounds and sores, do more harm than good, as they usually protract the cure, and often prevent it entirely. The cause is that plasters and salves are mostly water-proof, and therefore interfere with the natural function of the skin ; if either is placed on a sound portion of the skin and kept there for a few days the skin becomes irritable or sore. Scores of cases have come under our notice, when our advice to dispense with the use of a so-called healing salve caused a finger, which had been sore for months, and kept sore by the continuous application of the salve, to heal rapidly as soon as the salve was discontinued.

It is the same with the plasters ; we have seen it over and over again, that a cut wound, which had been covered tightly with a gummy plaster, had a most painful and protracted course,

while a similar wound simply treated by bringing the edges together and covered with a piece of linen or cotton wool to keep it clean, healed in a few day. It is even often advisable to put some blood over the edges of the wound, after they have been brought together with a few stitches or narrow cross-strips of plaster, which, however, must not be allowed to cover the wound entirely. It should not be lost sight of that the skin is made for contact of air, and that this contact is necessary not only to keep the skin in healthy condition, but also when repairs are going on. But blood is soluble in water and absorbs air, and it has great healing power ; in fact, there is no healing salve so efficient as the blood-clot which often covers a wound, and which therefore should not be interfered with by any means. Under a dried crust of the blood repair goes on actively, as blood contains all the elements required for such repair, and renewal of tissues wants the nourishing ingredients which are found in the blood.

HYPNOTISM DISCUSSED BY THE ANTHROPOLOGISTS.—At the meeting of the New York Academy of Anthropology, in November, the subject of Hypnotism was discussed from points of view mooted in two papers. One a review of Dr. Tuke's "Sleep-walking and Hypnotism," by Prof. E. P. Thwing, M. D., pointed to the discrimination made between the spontaneous and artificial conditions of somnambulism ; and indicated the factors present in hypnotic control, the contemporaneous restraint and excitation of cerebral functions, and the general effect on the system. The other paper, by Dr. Holbrook, of the *Herald of Health*, was a careful translation from the French of an interesting report of the recent meeting of scientific men at Nancy, France, where papers were read and views presented on the nature and practical bearings of Hypnotism. A prominent feature being made of the mental control that might be exercised by the operator for the purpose of moral reforms, as well as for therapeutic objects. The Rev. Mr. Chester, W. H. Ingersoll, and Dr. Drayton commented on the evidences in favor of the application of hypnotic methods. The data had now assumed a form through tabulations and classifications that commanded the respect and interest of scientific men, and no longer could be ascribed to jugglery and illusion.



FOWLER & WELLS COMPANY, *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
DECEMBER, 1886.

SUCCESS AND SUCCESS.

"SUCCESS" has a different meaning to different people, according to their views of life. To the great majority it appears to have special relation to the acquirement of wealth, because with the possession of wealth it is supposed one acquires power to do almost anything he pleases, and commands respect and position in the community. "When I am rich," says the young man, "I shall do such and such things." "When I am rich," says the young woman, "I shall have a handsome house, and a good place in society." To the small minority, "success" varies in significance according to individual motive and aspiration. Here is one who believes that the storage of the mind with classical and ancient learning is a most important attainment, and he shuts himself in his study for many years, dilligently poring over old Latin, Greek, Hebrew, Arabic, Sanscrit, folios, and as he advances in scholarship deems himself nearing the goal of success. There is another who thinks that scientific research offers the best rewards, and he

devotes himself to the processes of the laboratory or to the tedious scrutiny of nature. Another is persuaded that a life given to others, in the performance of benevolent deeds, whether in a land far away from family and friends or in his native place, is surely deserving of the title successful. Still another discerns in publicity through the mimicry and tinsel of the stage or the very respectable channel of the lecture platform the gateway to success.

"Success" is a compound word from the Latin *sub cedere*, meaning to go under, or to follow or take the place of—as when one succeeds to an office or charge recently held by another. It implies in such case the receipt of the privileges and emoluments attached to the office. Hence the common idea of material profit involved in "success." But it implies also an important quality, that of capacity. When a man takes a place in the business or political world it is assumed that he is competent to discharge its duties; that he furnishes appropriate services in return for the pay and consideration the place brings him. It is not merely the getting up to a point, which by common consent is invested with honor and emoluments, that should be looked at, but one's capability of meeting the requirements that immediately attach when he gets there. Accident sometimes places a man in a position for which he is constitutionally unfitted, and the apparent success is complete failure. Sooner or later this fact becomes manifest in the injury and loss consequent upon the man's incompetency.

Success, positive and real, means far more than pecuniary results; it has a

moral significance ; it relates to the man or woman personally. It signifies a mental growth that rises above mere physical considerations, and enables the man or woman to view life from a better and happier point of view than formerly. Success means happiness—and happiness means a condition of mental development in which faculty co-operates with faculty in harmonious action, and excessive, one-sided, prejudicial influences have no place in their operations. Take the man who by patient self-culture has reached the point where his faculties work without friction, and he can look serenely upon the panorama of life with all its conflicts and agitations ; who finds enjoyment in the occupations of brain and hand, in the contemplation of nature, or the accomplishments of science and art ; who yields a hearty sympathy for benevolent work and moral reform ; who rejoices at the improved condition of any who have been low in fortune, intellect or morality ; who makes more account of the virtues of men than of their vices and weaknesses ; who sees in his position, whatever it may be in the social scale, abundant opportunity and privilege for the exercise of his best powers—is not such a man to be rated *successful*?

Take another who has been engaged in the strife of business, and by energy, persistence, shrewdness and thrift has amassed a million ; who in the absorbing pursuit of gain has become cold, severe, and exacting ; who has little to do with others, but rather shuts himself up in a habit of morose reserve ; who views nearly everything that comes under his notice from a dollars-and-cents point, and for the gentle, kindly side of humanity

shows little sympathy and little intelligence. It is plain where such a man lives—in but one side of his organism, the selfish, material side—because that has been always in exercise and developed into masterful predominance. Society may admire the gold of that man, but it despises him. Is he a success ?

Dr. Wayland defines happiness as a “pleasurable consciousness,” which in the language of a writer in the *London Lancet* may be little more than “a physical result of a brisk and healthy circulation of blood through the vessels supplying the ganglia of the great sympathetic system of nerves.” Such “pleasurable consciousness” every animal in good health may have, and certain associations of food and drink may contribute to it in man. The opium eater, the drinker of alcoholic liquor, may experience this “pleasurable consciousness,” for a short time after taking his supply of the beloved hypnotic or stimulant, but how soon the agreeable effects of the poison are followed by physical discomfort and mental excitement !

Physical comfort, the consciousness of a harmonious interaction of stomach, heart, lungs, etc., contributes greatly to happiness, it must be admitted, but true happiness, that high, harmonious condition that renders *human* life the most exalted and desirable, is a mental product. We have known men and women with sickly, crippled bodies, who, perhaps never felt a thrill of the “pleasurable consciousness” defined by the physiologist, and yet in whose faces glowed the soft light of peace, and whose language seemed inspired by a joyousness indescribable. The rude exhilaration of mere physical robustness faded into

insignificance in comparison with the deep mental content exhibited by such a one. Here in the disciplined, harmonious, generous, uplooking character was a pattern of true success, as we understand it, and Thoreau, somewhere adds a pearl of thought reflecting beauty and light in his sprightly manner on the topic:—"If the day and the night are such that you greet them with joy, and life emits a fragrance like flowers and sweet scented herbs—is more elastic, more strong, more immortal—that is your success."



THE DOUBLE WORK OF PHRENOLOGY.

THE earnest correspondent, who writes us in such terms of consideration for the good of the public, should bear it in mind that the utility of Phrenology has a double application. We must view it from two chief points of advantage: First, in its relation to ourselves. Second, in those relations that subsist between ourselves and others or society. The first is necessarily the more important and precedent. If a man wished to be a teacher of drawing, he would first of necessity learn to draw well himself. He might have good natural taste for art, and certain clear impressions of what is pleasant and striking in the works of art, but without systematic study he would not be skilful in his understanding of the niceties of form and of the delicate harmonies of color; he could not by general observation and occasionally rubbing a pencil on some paper become an artist. No, he must set about it in good earnest, beginning at the first lessons in simple lines, and then proceeding slowly, one step after

another, educating brain-cell, eye and hand together, until out of the lines described by his pencil he can develop realities of perspective, light and shade.

The motive that is uppermost in the minds of the great majority of people who are drawn to an examination of Phrenology, is that it will help them to a knowledge of other people's character. They wish to know what sort of a man Mr. Simonson really is, and it would be pleasant to have at command a system that will take the mental measure of Mr. Simonson and save them from possible loss or damage in association with him. Prof. Bain says that, "Phrenology is a science of character," so it should be a convenient auxiliary in the affairs of business and society.

We have nothing to urge against such a motive; it is not an unworthy one in itself, but in most instances it indicates a misunderstanding of the true object of phrenological science as a factor in civilization. Properly employed, its influence is powerful in furthering the welfare of society, through the development of the human qualities, and the suppression of the brute instinct; its spirit is broad and humane, not selfish.

When studied, as the scientist studies a particular department of physics, it is found to possess qualities of expansion, and the more one knows of it the more complete appears its adaptation to human needs: whether on the social side or on the individual side it is tried its usefulness soon becomes manifest.

We have said, however, that the precedent application of Phrenology is to ourselves, and have instanced the course of one who prepares himself to teach a department of art to illustrate in part

our meaning, which may be crystallized in the axiomatic phrase "he that would know others must first know himself." This is the point of view, the Orizaba, whence one must survey the outer world of human nature. The analysis of one's own organic constitution must be made in a careful, orderly manner, to obtain a clear understanding of the nature and office of faculty, and how mental expression is affected by physical states.

TO BE WELL—KEEP WELL.

THE law of Cure is based upon the same principle as the law of Prevention; whatever the disease that demands consideration we must look to philosophy and hygiene for our guidance. As in obedience to their simple cuisine we find health and vigor, so in wilful disregard of them sickness and weakness are sure to appear, the pallid avengers of abused and insulted nature. They live near to "nature's heart" who take pleasure in living simply, purely, moderately, and their reward is in the strength of faculty and "many days" that make up a happy and successful life.

If one be born with infirmities of body or brain, he is handicapped for the earthly race, and there is reason for his complainings and failures; but he who comes upon the course well-equipped with the qualities of a vigorous manhood, and in recklessness or with a show of false pride sets at defiance the plain teaching of science and nature, eats and drinks, acts and works without regard to propriety and order at home and abroad, will suffer the inevitably just consequences of his wantonness in the wrecked body and degenerate mental functions that should make him a spec-

tacle of warning to others. We should more earnestly recognize the fact that moral culture has much to do with promoting health and preventing one from falling into any form of morbidness. A strong sense of duty and high motives tend to keep one in the right path. The appetites and passions are not overstimulated by emotions that prompt to usefulness and keep the intellect steadily engaged in a worthy direction. While one man may have the instinct of mere living stronger than another, and so may endure more physical trials than another, yet the effect of high moral purpose is, I think, greater in promoting that balance of organization that prevents nervous friction and mental irregularity than the mere vital instinct. Honest living in view of the obligations that rest upon us as men and women, and the cultivation of health as an instrumentality in carrying out our valid purposes, must have a positive effect upon the temper and spirit of our whole nature, fortifying it against those irritations and annoyances so thickly strewn in the channel of everyday activity. Can we sympathize with those who deliberately transgress the laws of their being, whatever may be their motive? How many cultured, "high-toned" people, especially women, neglect common personal necessities, on the score of "delicacy"! inviting sickness and disease, which when it comes will be attributed to the fault of anybody but themselves. The physician with a large practice has occasion to condemn persons of this type almost daily. Health, solid, supporting, lasting health, is the reward of care and vigilance, and in itself an honor to the wearer.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST," ONLY WILL be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed to the Editor will receive his early attention if this is done.

MEDICAL WORKS.—J. L. B.—For a person who has no systematic training in anatomy and physiology it is best to read the popular volumes on diet and hygiene, and not attempt the reading of treatises intended for the use of medical practitioners. What you should know is how to live that you will not be sick, or the methods of prevention. We think that people who attempt to treat actual diseases, by using the books gotten up by writers who advise drug prescriptions for this and that malady, do more

harm than good because of their ignorance of the nature of disease and of the principles of diagnosis. Experienced physicians make serious mistakes in their reading of complex symptoms—and nearly all inflammatory disorders affecting lungs, liver, kidneys, and the intestines present complex symptoms, so how can a person who is ignorant of the very elements of physiology expect to understand a case, and to prescribe for it intelligently. In the use of hygienic processes there is much less danger than in drug giving, and in the necessary absence of a physician, one who has studied a good hygienic treatise may do excellent service. The hygienic writers usually take pains to describe the nature and symptoms of a disease so that the reader can understand it, and as their advice concerns mainly observance of the laws of physiology they are particular in describing the organs and functions of the body, and the reader is not altogether left in the dark as to the essentials of physiology and anatomy. For the common, minor ailments hygienic treatment is sufficient, and a moderate amount of study and a little observation by an intelligent person will be sufficient to enable him to understand them, and by prompt treatment check them and prevent their development into grave forms of disease. For you therefore we advise the study of the hygienic authors.

HANDWRITING.—J. E. R. E.—The writer of the essays on this subject that have been published in the PHRENOLOGICAL JOURNAL is the only authority we know, and as a rule we do not attempt to interpret character from one's pen-marks. But, as you insist, we will venture to say that your handwriting shows an off-hand, frank nature, with probably a good vein of vanity and aspiration. In respect to credit and approval you are rather selfish, feeling often that others get more than their share, and what probably belongs to you. You are inclined to be orderly, and are tasteful, with, it is likely, a disposition to show off. You are not wanting in feeling and sympathy, yet need a little more self-poise and steadiness of thought and action.

MUSHROOMS.—G. C.—Yes, we consider the genuine mushroom a good article of diet. By most cooks it is converted into a mere condiment, and its virtues as food completely destroyed. Wool is excellent material for clothing by reason of its great porosity, and in the measure of its mixture with other fibre it loses in that quality. The kind of fabric called merino is a favorite mixture of wool and cotton, the finer grades being admirably adapted to our use.

TEMPERAMENT IN MAGNETISM.—M'C.—It does not matter what the temperament is, one seems as favorable as another. I have seen a strong, bony, dark-complexioned man yield more easily than a light-haired, weakly person. The condition precedent appears to be the state of receptivity, or expectancy, of the subject. The exercise of the influence depends more upon the subject than upon the operator.

SIZE OF THE ORGANS.—N. J.—You must estimate the organs not according to any fixed standard, any independent model head, but in connection with the relative development of the head you are examining. If the head under observation is, say, 22 inches in circumference, you must bear in mind the proportional development of a symmetrical head having that size, and thus note the comparative sizes of the organs. Any attempt to design a model figure of head or brain would be only an approximation.

TO SEVERAL CORRESPONDENTS.—C. W., J. P., etc.—Your inquiries relate to matters that are personal; important enough, too, we admit, to deserve that word of counsel or encouragement that we should have promptly given had you merely inclosed the necessary stamps for postage. Our every minute is of value, in a pecuniary sense, yet we are willing to present some of it to correspondents who may be benefited by a few lines traced by our pen. We usually throw in the stationery, but it seems too much to expect that we shall give the postage also. Because a valuable premium is sent to each new subscriber to the PHRENOLOGICAL, is no reason for one to expect us to pay all the expenses of one's correspondence.

No, gentlemen, read the suggestions at the head of this department, and follow them as strictly as you can, and then if we do not perform our part of the business rebuke us as sharply as you please.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects being preferred.

An Individual Reform Society.

—In my temperance and other reform work I often find persons who refuse to "join a church" or any other organization of persons whose object is the amelioration of the condition of human beings. I ask such if they are willing to "join themselves;" and if an affirmative answer is given, they are instructed and prevailed upon, if possible, to sign the document I enclose to you, entitled "My Own Common Sense Temperance, Religious and Self-Improvement Organization or Church. Located Wherever I May Be." By signing this document the person becomes a Reform Institution on his own foundation—governed and controlled by all the noble attributes in his possession. My object is to reform the wicked or sinful and make of him, if possible, a divine helper in the work of reform. People are not all born at the same time, neither are they all converted at the same time. I am working for personal individual improvement. It is said that Socrates at one time found in one of the streets of Athens a man in tears, and asking why he wept, was answered, "I weep because I can not move the world." Socrates replied, "You will do something toward it if you will get up and move yourself." Thus do I desire each person to "move himself," or in other words to *do* something for his own good and the good of humanity of which he is a member. The tree is not known so much by the leaves, the limbs, the trunk, the roots, or the location or by the label, as by the *fruit*; so man is not known, loved or respected, by his faith, his songs, his prayers, or his church label, but by his *deeds*, his *acts*, as "actions speak louder than words." Meeting a man recently who *talked* loudly about Christianity, I asked him if *he* was a Christian? He said, "Yes, but I don't work at it now." The world needs more workers, more "doers of the word."

J. H. HARTER.

Croup.—In the year 1850 or 51, when in Stockholm, Sweden, a young brother, about 7 years old, was attacked by croup, while I was away in my office. My mother sent for

two doctors (one of them the "king's own") and a barber with leeches. When I got home in the afternoon I found them all there. The doctors said that the boy could not live. I packed the barber off, and sent for Dr. Liedbeck, a homeopathist, who immediately came, bringing with him another physician of the same persuasion. When Dr. L. came, the other doctors said: "Brother L. may just as well make his experiments; the boy will die anyhow." Dr. L. and his companion consulted a short time and then told me to undress the boy, get some cold water and pour it over his back. I did so. Almost as soon as that was done, the boy said: "Oh, it feels so good," although he had not been able to say a word the whole day before. He recovered without anything else being done to him.

F. H. WIDSTRAND.

PERSONAL.

Mrs. A. T. STEWART, who died on October 25th, was a New Yorker by birth, her maiden name being Cornelia M. Clinch. She married Mr. Stewart in 1823. Mrs. Stewart was in some respects a remarkable woman. She was familiar with the tariff laws and the business of her husband; during the war she was conspicuous for her loyalty to the Union cause, and her whole life was eminently pure. It seems unfortunate that so large a fortune as Mr. Stewart's should not have been applied in part to some object of public usefulness.

The present Queen of Roumania, now forty-two years old, has had a romantic career. She was born in a quaint little country house on the banks of the Rhine, and was a great romp in girlhood, fond of out-doors, impatient of control, self-reliant, and with an extraordinary poetic talent. Her ambition, after much travel, was to be a teacher, but Prince Charles, of Hohenzollern, whom she had met during her absence from home, asked her to become his queen. It is fifteen years since she was married.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

The art of living is like all arts: the capacity alone is born with us; it must be learned and practiced with incessant care.
—Goethe.

Many a small man never ceases talking about small sacrifices he makes; but he is a great man who can sacrifice everything and say nothing.

True humanity appertains rather to the mind than to the nerves, and prompts men to use real and active endeavors to execute the actions which it suggests.—*C. J. Fox.*

O, the little bird sang east, and the little bird
sang west,

And I smiled to think God's greatness
flowed

Around our incompleteness;
Around our restlessness his rest.

—*Mrs. Browning.*

Conversion is no repairing of the old building; but it takes all down and erects a new structure. The sincere Christian is quite a new fabric, from the foundation to the top-stone all new.—*Alleine.*

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

The following is a curious definition of a dentist:

"A dentist, dear, makes teeth of bone,
For those whom fate has left without,
And finds provision for his own
By pulling other people's out."

Coming into the station: Brakeman.—
"Paw-tucket! Paw-tucket!"

Inevitable book-and-candy boy (at other end of car).—"Caramels! Caramels!"

Old Gentleman (unfamiliar with route).—"Dear me! Dear me! Did you understand what station they called?"

"I like smart women well enough," said Fenderson; "but I wouldn't care to marry a woman who knew more than I did."

"And so," suggested Fogg, "you have been forced to remain single."

"I want some preserves on my bread, ma." "You mustn't have it, Johnny; that nice butter and sugar is just the thing for you." "Wow, wow," he howled, "I won't have it. Tain't nothing but glucose and oleomargarine, and it's pizen. Gimme preserves if you don't want your little boy to die."

Dude.—"Ah, Miss Lillie, why are those fire-tongs so much like Fred." [He meant her to guess, or him to tell her "because they glowed in her service," or were "pros-

trate at her feet," or something of that kind.]

Miss Lillie (looking so solemnly demure that the clock stopped).—"I don't know, unless it was because they had thin legs and a brass head."

Last Christmas Eve. Mrs. J.—went upstairs to see if the children had hung up their stockings for Santa Claus, and found that little Jim had pinned his up in a prominent place, with a slip of paper attached, containing this suggestive New Testament sentence: "The Lord loveth a cheerful giver."



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

PUBLICATIONS RECEIVED.

IRENE; OR THE ROAD TO FREEDOM. A NOVEL.

By SADA BAILEY FOWLER. 12 mo. Cloth. Philadelphia: H. N. Fowler & Company.

A singular story that weaves in a great variety of character, and illustrates many incidents of actual occurrence in the home and social life of average people. But the author has wielded her pen for a purpose above the careful, studious portraiture of contrasted character. She has views on the relations of men and women, the duty of the latter to assert their equality with men, and other matters that belong to reform and progress; views that find their root in physiology, the laws of transmission, and in psychology, and these she has applied with much earnestness in the action and incidents of the volume. She holds up an ideal of the marriage relation that she believes will render the men and women who respect it as far as they can much happier, and be productive of a much higher type of offspring in body and mind. As a work of fiction the book is not so well balanced; yet as a mode of argument it possesses many elements that must interest the thoughtful for whom it

was written. The attempt formulated by one of the chief persons of the many partakers in the panorama, Irene, is to create a new social institution in which men and women shall associate on terms of perfect equality; love each other purely, unselfishly, and without sexual passion; but in the end become convinced that marriage with complete suitability and personal sympathy is the true realm of liberty for women.

TEN DOLLARS ENOUGH—KEEPING HOUSE

WELL ON TEN DOLLARS A WEEK: How it has been done. How it can be done again.

By CATHERINE OWEN. 12 mo. pp. 279. Price \$1.00. Boston: Houghton, Mifflin & Company.

A very practical book. The young housekeeper, limited to a certain small sum of money for her weekly supplies, often longs for a mentor in type that will suggest ways and means for solving a situation in her affairs that appears too formidable for her available resources. Miss Owen has prepared a book that will help such a young housekeeper. A rapid glance through the pages is convincing that most young people, who have ten dollars to expend on their table weekly, do not begin to reach the possibilities that lie within that ten dollars. Discretion in the choice of food, method and intelligence in its preparation, and economy on the side of waste will make so many dollars not only go a good way, but be productive of an appearance even of luxury. The author has made up an inviting cookery book, with glimpses of the happy home-life of the people who are assumed to be practicing according to her formularies, sandwiched between the advice about mutton, cabbage, and bread-making.

BOOK OF ENTREES. By THOS. J. MURREY.

Author of Fifty Soups, etc. etc. 18 mo. pp. 83. Paper, price, 50 cents. White, Stokes & Allen: New York.

Mr. Murrey adds a fresh number to his growing list of little hand books for the kitchen-maid and housekeeper. He explains in a brief introduction that "Entrées" are the middle dishes of the feast, and not the principal courses—they are a series of dainty side dishes, in the preparation of which the cook demonstrates the extent of her capabilities. Then, entrées are chiefly made of animal substance; although very acceptable ones may be prepared from the products of the garden.

THIRD ANNUAL REPORT OF U. S. CIVIL SERVICE COMMISSION, Comprising the year January 16, 1885, to January 16, 1886. A plain statement of the work and duties of the Commission, with intimations of what is essential for the improvement of the conduct of our public offices. It is scarcely to be expected that politicians of the old "machine stamp" will show much interest in this important work, but all who have the welfare of civil affairs at heart will second the efforts of these gentlemen who constitute the Commission. They are evidently in earnest.

THE CENTURY, for November, contains an abundant variety of reading, with glimpses of both foreign and domestic life. First appears a sketch of Abraham Lincoln, with a fine portrait of the good man. Among the other topics that are worthy of notice are "Old Chelsea," with illustrations, "Machine Politics in New York City," "The Need of Trade Schools," "The Temple of the Ephesian Artemis," "Gen. Hooker's Appointment and Removal," "The Battle of the First Day at Gettysburg," and other chronicles of the war appear. The Century Co., New York.

STALL'S LUTHERAN YEAR-BOOK, for 1887, published by the author, and for sale by all Lutheran book stores in the United States and Canada. 186 pages. Price 25 cents. This annual represents all branches of the Lutheran Church in the United States. It has an interesting history of the early Lutheran Settlements in the United States, names and addresses of all Lutheran ministers, portraits of prominent Lutherans, engravings of institutions of leading churches, etc. Sylvanus Stall, editor, Lancaster, Pa.

THE PHYSICIAN'S VISITING LIST, 1887. (Lindsay & Blackiston's.) This publication of P. Blackiston, Son & Co., of Philadelphia, is to be commended for its convenience as a note and reference book. In very compact terms valuable information is given relating to poisons and antidotes, Marshall Hall's Method to Restore Animation. Diagnosis, Incompatibles, New Remedies, Disinfectants, Urinalysis, and other matters of every day utility. Price, in leather, \$1.00. Arranged for 25 patients, \$1.00; interleaved, \$1.25.

ON INDIRECT FRACTURES OF THE SKULL. By Charles M. Dulles, M. D. Fellow of the

College of Physicians of Philadelphia.— This is a study of the subject intimated by the title from most points of view. The writer goes somewhat into the history of injuries and quotes extendedly from authorities. Analysis is made of the tendencies of fracture resulting from force exerted in different directions. Twenty-seven diagrams illustrate as many cases. The essay is interesting to surgeons generally.

HIGH LICENSE WEIGHED IN THE BALANCES, AND — By Herrick Johnson, D.D., an able discussion of the question of the claims on High License. The "claims" are set forth in detail, and fully answered by argument and statistics by one thoroughly able and also wholly acquainted with the workings of the law in the Western States of the Union. Price in paper 5 cents. J. N. Stearns, Publishing Agent, New York.

SCRIBNER'S MAGAZINE. On the 15th of December the first or January number of a new magazine will be issued by Chas. Scribner's Sons. This monthly will be devoted to general literature, and be finely illustrated. The contents of the first number will represent several of the best American writers. Terms \$3 a year.

THE POPULAR SCIENCE MONTHLY, for November (D. Appleton & Co., New York), contains "North America in the Ice Period," "The Mental Faculties of Monkeys," "Chevreul at a hundred," "Hickory-nuts of North America," "Inebriate Maniacs," and other topics of a popular and scientific nature.

CHRISTIAN THOUGHT, for October, has a varied table of contents: "Accord between Philosophy and Faith," "American Schools in the Turkish Empire," "The Gains and Losses of Faith from Science," are worthy of mention among its interesting contents. Wilbur B. Ketchum, publisher, New York.

CHILD GROWTH. A paper read before the Women's Anthropological Society, of Washington, D. C., by Clara Bliss Hines. The essay is brief, but contains a good many suggestions to parents for practical observation in anthropometry.

OGILVIE'S POPULAR READING, No. 35, contains several complete stories, chiefly of the sensational type. Price, 30 cents. Ogilvie & Co., New York.

HARPER'S, for November, is well illustrated, and possesses features of a higher literary character than usual, we think.

THE NATIONAL TEMPERANCE SOCIETY has just published a new concert exercise for Sunday Schools, Bands of Hope and other juvenile temperance societies, expressly adapted for Christmas entertainments celebrations. Three pieces of stirring music, with the notes, are given. Price, 3 cents copy; 30 cents per dozen.

THE NEW ENGLAND MAGAZINE for November contains a good sketch of the late John B. Gough, and thoughtful papers on International Copyright, "The Wayside Inn at Sudbury," illustrated, "A Notable Family," Isms, and a variety of paragraphs on current matters.

CATALOGUE OF THE EXTENSIVE ARCHÆOLOGICAL COLLECTION, of MR. EUGENE BOBAN; comprising "Antiquities of Mexico, Guatemala, Central and South America, Egypt, Greece, Rome and Gaul. Antique Gems, Cut and Polished Stones, etc., and Specimens relating to Ethimography, Anthiopoly, Patenitology, Luology, etc. Pre-historic implements, coins and medals, to be sold Dec. 13th to 18th by George A. Leavitt & Co., at their Gallery, Broadway, New York.

CURRENT EXCHANGES RECEIVED.

New York Tribune, weekly.
Leisure Hours, G. N. Hobart, New York.
Scientific American, Munn & Co., New York.
Power and Steam, monthly, New York.
Christian Advocate, weekly, Phillips & Hunt, New York.
Harper's Young People, weekly, Harper & Brother, New York.
Missionary Review, for November and December, Princeton, N. J.
Banker's Magazine, and Statistical Register, monthly, New York.
The Poultry Monthly, for November, Publishing Co., Albany, N. Y.
Gospel Age, illustrated, monthly, T. J., New York.
Christian at Work, weekly, J. M. Hallock, New York.
Banner of Light, Spiritualists' organ, weekly, Boston.
The Medical Advance, Homeopathic, Monthly, Ann Arbor, Mich.
Illustrated Catholic American, weekly, P. V. Hickey, New York.
Bradstreet's, Journal of trade and Finance, weekly, New York.
The Independent, weekly, New York. A representative of Congregationalism.

American Medical Journal, G. C. Pitzer, editor, St. Louis, Mo.

Illustrated Christian Weekly, American Tract Society, New York.

Christian Herald, and Signs of Our Times, Bible House, New York.

Medical Brief, monthly, Journal of Practical Medicine, St. Louis, Mo.

Church Press, Independent Church newspaper, weekly, New York.

The Earth, new weekly publication relating to all sorts, New York.

Gazetteer, monthly, The Writers' Publishing Co., New York.

Illustrated Graphic News, progressive weekly, Cincinnati.

Photographic Times, weekly, Scoville Manf. Co., New York.

The Home Journal, Society News, Morris Phillips & Co., New York.

The New York School Journal, weekly, A. M. Kellogg, Editor, New York.

Western Rural and American Stockman, Milton George, Chicago.

American Inventor, devoted to industrial interests, monthly, Cincinnati.

Journal of Heredity, Mary W. Barrett, M.D., editor, monthly, Chicago.

New York Cultivator and Country Gentleman, Luther Tucker & Son, Albany, N. Y.



"I'm sorry I didn't subscribe for the PHRENOLOGICAL JOURNAL this year. Am bound to do it for 1887, and get rid of my neuralgia."



